



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

Naoko Ishii
CEO and Chairperson

July 31, 2014

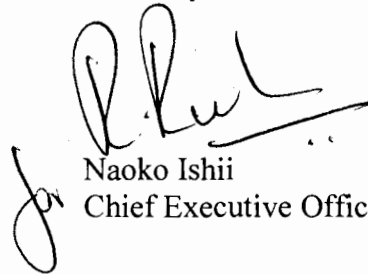
Dear Council Member:

UNEP as the Implementing Agency for the project entitled: *South Africa: Enabling South Africa to Prepare Its Third National Communication (3NC) and Biennial Update Report to the UNFCCC*, has submitted the attached proposed project document for CEO endorsement prior to final approval of the project document in accordance with UNEP procedures.

The Secretariat has reviewed the project document. It is consistent with the proposal approved by Council in April 2013 and the proposed project remains consistent with the Instrument and GEF policies and procedures. The attached explanation prepared by UNEP satisfactorily details how Council's comments and those of the STAP have been addressed. I am, therefore, endorsing the project document.

We have today posted the proposed project document on the GEF website at www.TheGEF.org. If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,



Naoko Ishii
Chief Executive Officer and Chairperson

Attachment: GEFSEC Project Review Document
Copy to: Country Operational Focal Point, GEF Agencies, STAP, Trustee



REQUEST FOR CEO ENDORSEMENT

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

For more information about GEF, visit TheGEF.org

PART I: PROJECT INFORMATION

Project Title: Enabling South Africa to Prepare its Third National Communication (TNC) and Biennial Update Report to the UNFCCC			
Country(ies):	Republic of South Africa	GEF Project ID: ¹	5237
GEF Agency(ies):	UNEP (select) (select)	GEF Agency Project ID:	00983
Other Executing Partner(s):	Department of Environmental Affairs	Resubmission Date:	30/07/2014
GEF Focal Area (s):	Climate Change	Project Duration(Months)	36 months
Name of Parent Program (if applicable):	Not Applicable	Project Agency Fee (\$):	380,632
	<ul style="list-style-type: none"> ➤ For SFM/REDD+ <input type="checkbox"/> ➤ For SGP <input type="checkbox"/> ➤ For PPP <input type="checkbox"/> 		

A. FOCAL AREA STRATEGY FRAMEWORK²

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Cofinancing (\$)
CCM-6 (select)	Adequate resources allocated to support Enabling Activities under the Convention	- Third National Communication, completed and submitted to the UNFCCC by June 2017 - Biennial Update Report completed and submitted to the UNFCCC by June 2015	GEF TF	4,006,650	1,351,000
(select)			(select)		
(select)			(select)		
(select)			(select)		
(select)			(select)		
(select)			(select)		
(select)			(select)		
(select)			(select)		
(select)			(select)		
Total project costs				4,006,650	1,351,000

¹ Project ID number will be assigned by GEFSEC.

² Refer to the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing Table A.

B. PROJECT FRAMEWORK

Project Objective: To prepare the Third National Communication (TNC) and first Biennial Update Report (BUR) of South Africa to enable the country fulfill its obligations under the UNFCCC, in accordance with Articles 4.1 and 12.1 of the Convention while strengthening its capacity to integrate climate change concerns into national and sectoral development plans and priorities through the implementation of the national climate change response strategy (NCCRS)

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount (\$)	Confirmed Cofinancing (\$)
1. National Circumstances for the Third National Communication to the UNFCCC prepared and approved by Government	TA	<p>1.1 Review and update National Circumstances of South Africa with regard to climate change challenges for the TNC</p> <p>National Circumstances of South Africa with regard to climate change challenges reviewed, updated and officially approved</p>	<p>1.1.1 Detailed report of national and regional priorities to address climate change concerns within the framework of national development programmes, plans and strategies</p> <p>1.1.2 In-depth description of the geography, climate, environmental and socio-economic profiles of the country with emphasis on sensitivity to climate change and climate variability</p> <p>1.1.3 Thorough description of the institutional arrangements adopted for producing the third national communications including those related to the compilation of GHG inventories and the preparation of Biennial Update Report</p> <p>1.1.4 Description of the national institutional framework for the effective implementation of measures to meet the objectives of the Convention</p> <p>1.1.5 Third National Communication introduced, explained</p>	GEF TF	38,185	10,000

			<p>better trend analysis</p> <p>2.2.2 Methodologies for Tier II adopted wherever AD is of the detailed level of disaggregation and documented in an inventory report.</p> <p>2.2.3 Amended improved emission factors have been adopted and documented</p> <p>2.2.4 QA/QC, Uncertainty analysis and Key Category Analysis performed as per Good Practice Guidance and reported</p> <p>2.2.5 Further improvement areas identified and a National Inventory Improvement Plan prepared for action until the next inventory compilation</p>			
		<p>2.3 Institutional arrangements put in place, and institutional capacity enhanced to facilitate the preparation of national GHG inventories on a regular basis.</p> <p>Institutional arrangements put in place and officially endorsed as well as institutional capacity enhanced to facilitate the preparation of GHG inventories on a regular basis.</p>	<p>2.3.1 A National Inventory Management System made operational , through the active participation of strengthened sectoral ministries and institutions, and supported by a network of research institutions established</p> <p>2.3.2 QA/QC procedures are established and made functional</p>			
3. Measures to adapt to climate change for the Third National Communication to the UNFCCC	TA	3.1 Better understanding of climate change, climate variability and the resulting sea	3.1.1 Detailed analysis of historical climate data to detect changes at the provincial and community levels and	GEF TF	919,875	235,000

<p>outlined and officially approved</p>		<p>level rise on a finer spatial resolution.</p> <p>3.2 Improved climate change and sea level rise scenarios for improved projections at the spatial and temporal and geographical scales</p> <p>Improved climate change and sea level rise scenarios for improved projections at the spatial and temporal and geographical scales and endorsed by government.</p> <p>Outcome 3.3 Socio-economic scenarios developed, approved by government and made available for use when implementing the Convention</p> <p>3.4 Improved vulnerability and adaptation assessments of key socio-economic sectors</p>	<p>determine current trends</p> <p>3.1.2 Sea level data are analyzed and the trend available at different locations around the country</p> <p>3.2.1 The latest GCMs and RCMs are tested and the best used for projecting scenarios for vulnerability and adaptation assessments.</p> <p>3.2.2 Improved climate change and sea level rise scenarios are generated at the local, national and regional levels for different time steps up to the 2100 time horizon.</p> <p>3.2.3 Projected sea level rise are available for impact assessment on the coastal zone and other related activities</p> <p>3.3.1 Socio-economic scenarios developed for use in the evaluation of adaptation measures</p> <p>3.3.2 Risk assessments made and vulnerability indices developed for most probable climatic risks and extremes</p> <p>3.4.1 In-depth impact assessments of climate change on the Agriculture, Water Resources, Forest and other terrestrial Ecosystems, Coastal Zone and Health sectors are completed</p> <p>3.4.2 Adaptation assessments including the socio-economic aspects for the sectors</p>			
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		<p>3.5 More informed decisions based on outputs and enabling mainstreaming of adaptation to climate change into development plans</p> <p>More informed decisions based on V&A assessment outputs to allow for mainstreaming of adaptation to climate change into development plans which are endorsed by government</p> <p>3.6 More appropriate planning for concrete actions to adapt to climate change impacts</p>	<p>Agriculture, Water Resources, Forest and other Terrestrial Ecosystems, Coastal Zone and Health are completed.</p> <p>3.5.1 The more reliable vulnerability and adaptation assessments enabled the development of an adaptation strategy based on prioritization of key activities within sectors</p> <p>3.5.2 Spatial vulnerability profiles in GIS format produced at local and national levels based on vulnerability indices for different sectors and sub sectors produced</p> <p>3.6.1 A robust national adaptation plan with both short term and long term strategies is ready for implementation and taking into special consideration the poorer rural population as well as the economic engines</p> <p>3.6.2 A series of project briefs prepared and ready for development for funding</p>			
4. Measures to mitigate climate change	TA	4.1 Socio-economic scenarios developed, endorsed by government and made available for use in mitigation assessments	<p>4.1.1 New improved baselines created for emitting sectors</p> <p>4.1.2 Emissions projected to the 2050 horizon for the business as usual and new socio-economic scenarios</p>	GEF TF	750,000	250,000

		<p>4.2 Improved up to date mitigation assessments completed for key emitting sectors Improved up to date mitigation assessments completed for key emitting sectors and approved by government.</p> <p>4.3 Carbon sequestration potential evaluated for the country Carbon sequestration potential evaluated for the country and endorsed by government.</p> <p>4.4 Mitigation measures mainstreamed in national and local development plans and strategies for the consideration of the government.</p> <p>4.5 Effective and coordinated strategy in place for implementation of concrete GHG mitigation activities consistent with national development priorities Effective and coordinated strategy in place and approved by government for implementation of concrete GHG</p>	<p>4.2.1 Mitigation assessments completed for the Energy, Industrial Processes and Other Product Use, AFOLU and Waste sectors, including financial needs for implementation</p> <p>4.3.1 The sequestration potential of the country, with emphasis in the AFOLU sector and through Carbon Capture and Storage in the energy sector is determined</p> <p>4.4.1 A strategy for implementing the most prominent mitigation actions worked out in consultation with a wide group of stakeholders, including the private sector. A National mitigation plan is produced for guiding the way forward</p> <p>4.5.1 A series of GHG mitigation project briefs prepared and ready for further development into full project proposals for funding</p>			
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		mitigation activities consistent with national development priorities				
5. Other information relevant to the Convention	TA	<p>5.1 Improved assessment of technology needs for implementing the Convention Improved assessment of technology needs for implementing the Convention and approved by government</p> <p>5.2 Enhanced research and systematic observation systems, thus enabling the country to better meet its commitments</p> <p>5.3 Better understanding of Education, Training and Public Awareness needs</p>	<p>5.1.1 Technology Needs Assessment consistent with national strategies and plans to implement the Convention; 5.1.2 In-depth analysis and prioritization of technologies based on costs, adoption rates and other factors; 5.1.3 A Technology Action Plan is prepared, the objective being successful technology transfer for both mitigation and adaptation;</p> <p>5.2.1 Research and systematic observation needs identified and prioritized for implementation 5.2.2 Projects on climate research to improve assessment of impacts and adaptation 5.2.3 Research activities to develop country specific emission factors for improving quality of inventory 5.2.4 South Africa has collaborated in regional and international research and systematic observation networks for combating climate change</p> <p>5.3.1 Detailed plan for inclusion of climate change in formal educational curricula and vocational training</p>	GEF TF	472,000	80,000

		<p>5.4 Capacity Building needs for reporting to the UNFCCC and implement the Convention clearly identified</p> <p>Capacity Building needs for reporting to the UNFCCC and implement the Convention clearly identified and endorsed by government</p>	<p>prepared;</p> <p>5.3.2 Level of awareness of different segments of the population evaluated and remedial actions identified to inform and educate them and to influence their behavioral choices;</p> <p>5.3.3 An action plan to prepare awareness materials for effective sensitization of the general public ready for action;</p> <p>5.4.1 An exhaustive list of areas requiring capacity building is produced;</p> <p>5.4.2 A plan of action is ready for implementation and prioritizing capacity building in line with most urgent needs.</p>			
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<p>6 Biennial Update Report to the UNFCCC prepared and approved by Government by June, 2015</p> <p>- National Circumstances</p>	TA	<p>6.1 Write-up on the National Circumstances of South Africa with respect to climate change issues reviewed, updated and officially approved</p>	<p>6.1.1 National and regional priorities to address climate change concerns within the framework of national development programmes, plans and strategies reported in detail</p> <p>6.1.2 Information on the geography, climate, environmental and socio-economic profiles of the country with emphasis on sensitivity to climate change and climate variability described and documented</p> <p>6.1.3 Thorough description of the institutional arrangements adopted for producing the Biennial Update Report regularly</p> <p>6.1.4 Biennial Update Report introduced, explained and launched with relevant stakeholders</p> <p>6.1.5 Level of support received for preparation of BUR well reported</p>	GEF TF	350,000	150,000
<p>- National Inventory of anthropogenic emissions by sources and removal by sinks for all GHGs</p>		<p>6.2a Information on national GHG inventory and trends provided for the period: 2001 - 2011 for inclusion in the BUR1</p>	<p>6.2a.1 Activity data (AD) collected and formatted for use in UNFCCC software for IPCC sectors (a) Energy (b) Industrial Production and Other Product Use (c) Agriculture, Forest and Land-Use Change (AFOLU), and (d) Waste</p> <p>6.2a.2 All AD are quality controlled and</p>			

			<p>archived.</p> <p>6.2a.3 Data gaps identified and processes started and completed for filling these gaps (new surveys, etc.)</p> <p>6.2a.4 All emission factors (EFs) are reviewed for their appropriateness for South Africa before adoption.</p> <p>6.2a.5 All inappropriate EFs are modified to suit national circumstances as far as possible</p> <p>6.2a.6 Inventory of emissions compiled for the IPCC sectors listed in 6.2.1</p> <p>6.2a.7 All AD, EFs and compilations documented and archived</p>			
		6.2b Quality of inventory improved from Tier 1 to Tier 2	<p>6.2b.1 Computation of emissions over the full time period harmonized with same methodology for a better trend analysis</p> <p>6.2b.2 Methodologies for Tier II adopted wherever AD is of the detailed level of disaggregation and documented in an inventory report.</p> <p>6.2b.3 Amended improved emission factors have been adopted and documented</p> <p>6.2b.4 QA/QC, Uncertainty analysis and Key Category Analysis performed as per Good Practice Guidance and reported</p> <p>6.2b.5 Further improvement areas</p>			

			identified and a National Inventory Improvement Plan prepared for action until the next inventory compilation			
		6.2c Institutional arrangements put in place and officially endorsed as well as institutional capacity enhanced to facilitate the preparation of GHG inventories on a regular basis.	6.2c.1 A National Inventory Management System made operational , through the active participation of strengthened sectoral ministries and institutions, and supported by a network of research institutions established 6.2c.2 QA/QC procedures are established and made functional			
		6.2d GHG emission projections are generated for 2020 to 2050 and endorsed by Government	6.2d.1 Projected emissions for the period 2020 to 2050 completed and available			
- Information on climate change mitigation actions		6.3 Mitigation actions and their impacts, including associated methodologies, assumptions and implementation status are described in accordance with reporting guidelines and approved by government in line with the low carbon development strategy.	6.3.1 Status report on the national arrangements for the implementation of NAMAs including the establishment of a national registry provided 6.3.2 Reporting template for reporting mitigation actions developed and institutionalized 6.3.3 Status of implementation of mitigation actions and results obtained compiled in a tabular format and reported 6.3.4 Status report on participation in international carbon market mechanisms prepared 6.3.5 Establishment of			

			<p>a database on all mitigation actions (policies, measures) containing (a) a description of on-going and planned mitigation actions, including information on the nature of the action, coverage (i.e. sectors and gases) ; (b) methodologies and assumptions, (c) objectives of actions and steps taken or envisaged to achieve that action</p> <p>6.3.6 Forecast/projections for business as usual and different socio-economic scenarios for the period 2020 to 2050 completed</p>			
- Financial, technical and capacity needs including support needed and received		6.4 Framework for the continuous assessment and reporting of constraints, gaps and related financial, technical and capacity needs and support needed and received is established and endorsed by government	<p>6.4.1 Financial, technology and capacity building needs for mitigation actions assessed</p> <p>6.4.2 Information on financial resources, technology transfer, capacity building and technical assistance received from the GEF, Annex II Parties and other developed country Parties, the GCF and multilateral institutions for GHG mitigation activities collected, analyzed and updated.</p> <p>6.4.3 Report bringing all these elements outlined in 6.4.1 and 6.4.2 above together and helping to match funding opportunities with needs prepared</p>			
- Domestic		6.5 Domestic MRV	6.5.1 Domestic MRV system developed and			

measurement reporting and verification		arrangements for mitigation actions and its impacts are defined, established and endorsed by government	made functional 6.5.2 Information on the protocols and operational procedures of the MRV system developed 6.5.3 MRV conducted and reported			
- Any other information		6.6 Information on non-climate related impacts, opportunities and benefits on sustainable development objectives are provided and accepted by government	6.6.1 Report on non-climate related impacts, opportunities and benefits on sustainable development objectives prepared			
- Monitoring, reporting and preparation of financial audits		6.7 Project is effectively monitored and implemented	6.7.1 Project financial and progress reports prepared and submitted promptly			
- Publication and submission of BUR1		6.8 Officially approved BUR is submitted to UNFCCC	6.8.1 South Africa's first BUR prepared, reviewed, published and submitted to UNFCCC in line with reporting guidelines			
7 Other activities	TA	7.1 Preparation of GHG inventory report GHG inventory report prepared and approved by government 7.2 Preparation of TNC: TNC report prepared and approved by government by June, 2017 7.3 Synthesis and Translation of GHG Inventory report and TNC	7.1.1 The GHG inventory report is prepared in electronic and hard copies for wide circulation 7.2.1 The TNC report is prepared in electronic and hard copies for wide circulation 7.3.1 The GHG inventory and TNC are summarized in a format easily understood by the general public for their	GEF TF	298,500	100,000

		information 7.3.2 Awareness creation materials covering GHG inventories and other components of the TNC prepared and translated into national languages for outreach and awareness creation activities			
	(select)			(select)	
Subtotal				3,815,850	1,255,000
Project management Cost (PMC) ³			GEF TF	190,800	96000
Total project costs				4,006,650	1,351,000

C. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Please include letters confirming cofinancing for the project with this form – shown in Annex J-1 and J-2

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount (\$)
National Government	Departments of various Ministries	In-kind	1,255,000
GEF Agency	UNEP	In-kind	96,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Co-financing			1,351,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in \$)		
				Grant Amount (a)	Agency Fee (b) ²	Total c=a+b
UNEP	GEF TF	Climate Change	South Africa	4,006,650	380,632	4,387,282
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources				4,006,650	380,632	4,387,282

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

³ PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

Component	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
International Consultants			0
National/Local Consultants			0

The local and international consultant budget is provided in detail in Annex E.

G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF⁴

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.

The preparation of the TNC fits well with completed and ongoing initiatives under different conventions, inclusive of the UNFCCC. GOSA prepared its National Climate Change Response Strategy (NCCRS) in 2004 which was further developed into the more detailed Long Term Mitigation Strategy (LTMS) in 2007 and the National Climate Change Response Policy (NCCRP) in 2011. The NCCRP confirms that climate change is already a measurable reality and along with other developing countries, South Africa is especially vulnerable to its impacts. The White Paper presents the South African Government’s vision for an effective climate change response and the long-term, just transition to a climate-resilient and lower-carbon economy and society. The policy also notes that South Africa’s response to climate change has two objectives:

1. To effectively manage the inevitable climate change impacts through interventions that build and sustain South Africa’s social, economic and environmental resilience and emergency response capacity; and
2. To make a fair contribution to the global effort to stabilise greenhouse gas (GHG) concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system within a timeframe that enables economic, social and environmental development to proceed in a sustainable manner.

The NCCRP is guided by various principles set out in the Constitution, the Bill of Rights, the National Environmental Management Act, the Millennium Declaration and the United Nations Framework Convention on Climate Change. These principles are detailed in section 3 of the policy. The policy also describes the overall strategic approach for South Africa’s climate change response as being needs driven and customized; developmental; transformational, empowering and participatory; dynamic and evidence-based; balanced, cost effective as well as integrated and aligned.

GoSA has also embarked on a sustainable development agenda to meet the objectives the Multilateral Environmental Agreements and the Millennium Development Goals. The production of the TNC will definitely contribute in furthering these activities in addition to enabling GoSA to meet its obligations to the UNFCCC. It will on the one hand help to consolidate the existing and further develop policies and strategies towards their implementation within the development plans and serve to gauge the status and success of measures adopted to-date to build resilience and adapt to, and mitigate climate change by the nation.

It is also expected that the TNC will improve on the previous national communications (i.e., INC and SNC), through widening and deepening the scope to cover the provincial level as far as possible. Thus the data and information gathering will be carried out down to the provincial level. The expansion of the coverage will help in shaping up and strengthening activities at the sub-national level. This project will also facilitate the preparation of the Biennial Update Report Yr. 2014 - 2015.

⁴ For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter “NA” after the respective question.

A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities

The Government of South Africa (GoSA) views climate change as one of the greatest challenges of present times to the country, region and the world in its entirety. GoSA has been one of the countries of the African continent to host a Conference of the Parties in its role as one of the leading nations of the region. Moreover, GoSA, as a country, is geared towards setting the scene and paving the way for increased national engagements for meeting the objectives of the Convention. GoSA ratified the UN Framework Convention on Climate Change (UNFCCC) in 1997 and the Kyoto Protocol in 2002, in order to contribute to the global fight against climate change. As part of the obligations under the UNFCCC, the GoSA submitted its First National Communication in December 2003 and the Second National Communication in November 2011. South Africa considers the elaboration of National Communications (NCs) a national priority, not only as a fulfillment of the Convention's commitments, but as a key instrument to gauge implementation of national policies and strategies related to climate change within the context of its development agenda and the National Climate Change Response Policy (NCCRP).

The objective of this proposed project is to prepare and submit South Africa's Third National Communication (TNC) to fulfill its obligations to the UNFCCC (Article 12) as well as provide new and other information required to meet other obligations under the Convention, namely the biennial update report. The project proposal has been prepared as per requirements of the UNFCCC for NCs and based on Decision 17/CP. 8 - Guidelines for the preparation of NCs from Parties not included in Annex I to the Convention. The project proposal is also in accordance with Objective 6 of GEF-5's Climate Change Focal Area Strategy and Strategic Programming, which provides support for enabling activities and capacity building of Non-Annex I countries through funding for the preparation of NCs in a timely manner at a full-agreed cost.

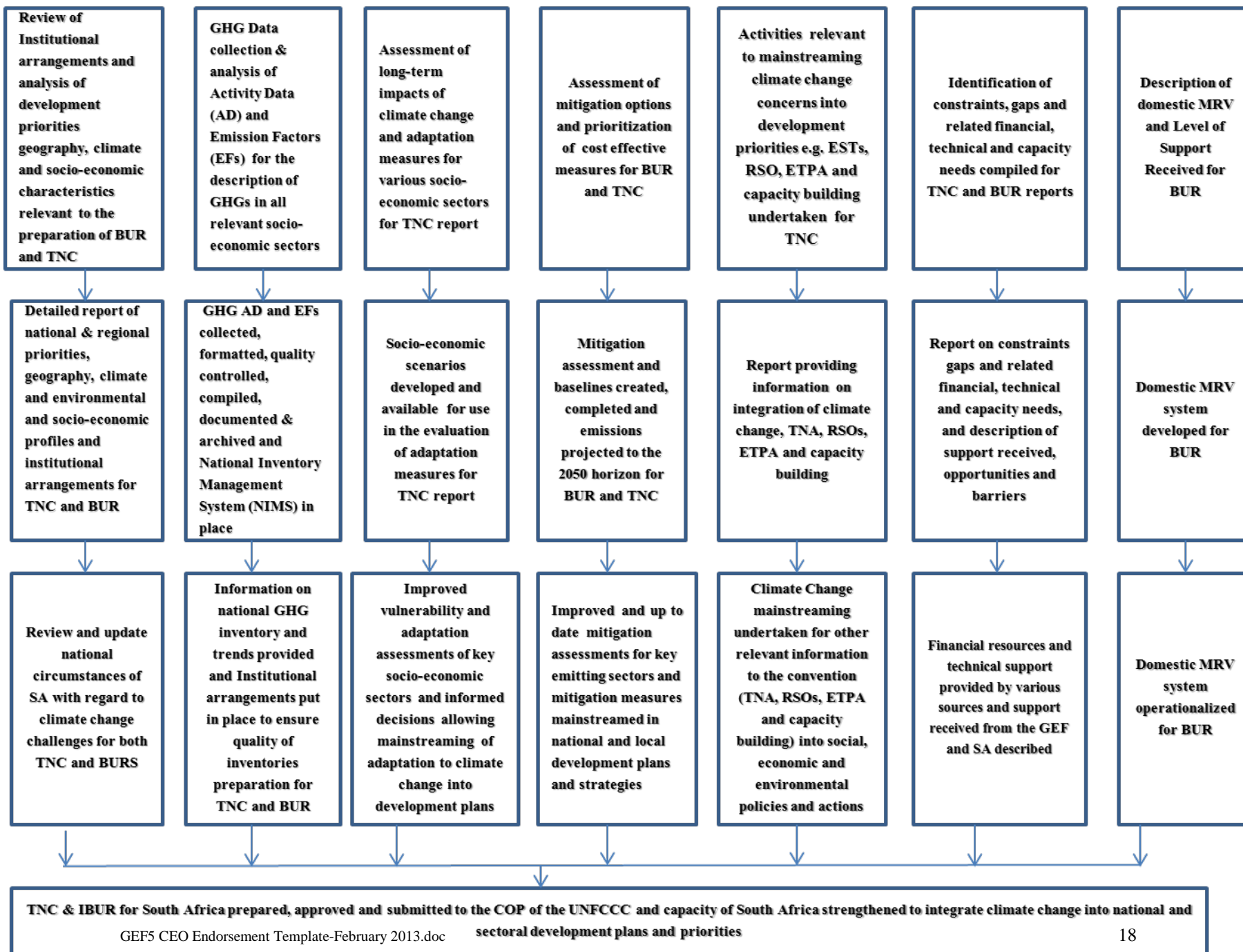
A.3 The GEF Agency's comparative advantage:

UNEP has the comparative advantage in developing and delivering technical assistance to countries for their enabling activities. UNEP has a normative capability in developing national reporting templates and providing training for roll out and testing. The project is consistent with the 2014-2017 medium term strategy (MTS) of the United Nations Environment Programme (UNEP) and is linked to Expected Accomplishment 2: Low emission growth - Energy efficiency is improved and the use of renewable energy is increased in partner countries to help reduce greenhouse gas emissions and other pollutants as part of their low emission development pathways. It is supported within the framework of the following Programme of Work (PoW) 2014-2015 Sub-programme 1 on Climate Change: Expected Accomplishment (b) Outputs: (3) - Tools and approaches designed and piloted in countries to develop mitigation plans, policies, measures, and low emission development strategies, and spur investment and innovation within selected sectors in a manner that can be monitored, reported and verified; (4) - Technical support provided to countries and partners to plan and implement sectoral initiatives and to make renewable energy and energy efficiency projects affordable and replicable; (5) - Technical support provided to countries to address UNFCCC monitoring and reporting requirements and to mainstream their results into national development planning processes in collaboration with United Nations Country Teams (UNCTs) and partners.

A.4. The baseline project and the problem that it seeks to address:

THEORY OF CHANGE PROCESS FOR SOUTH AFRICA'S TNC AND IBUR

The strategy of the project is to employ the best practice to the maximum extent possible. The project will build upon findings and experience gained through activities/projects aiming at addressing climate change issues and meeting the country's commitments under the UNFCCC. The preparation of the TNC and BUR1 will seek to assist in the process of national planning and policy formulation, especially as it relates to mainstreaming vulnerability and adaptation, and mitigation measures within the work programme of the various stakeholder agencies. The project is also expected to enhance general awareness and knowledge on climate change-related issues in South Africa. The representation below has been prepared using a holistic approach for both the TNC and IBUR together rather than on a stand-alone basis for each report. Thus columns 1, 2, 4 and 6 pertain to both TNC and IBUR, column 5 to TNC and TNA, column 3 to TNC only, and column 7 to IBUR only. A schematic representation of the theory of change as applied to South Africa is as follows:



Non-Annex I countries have the obligation to prepare and submit National Communications to provide information to the Conference of the Parties on their level of implementation of the UNFCCC. Up to now, GoSA has honoured this commitment by providing the required information on National Circumstances, steps taken and/or envisaged to implement the Convention, its sources of emissions and sinks in the GHG inventory, measures to adapt to, and mitigate climate change, and other information relevant to the Convention through its initial and second National Communications (NCs). The country will continue to share information on its implementation efforts as well as on the constraints, problems and gaps it faces and foresees in further implementing the Convention through its NCs. In addition to being the main reporting instrument of the country to the UNFCCC, the NCs will also serve as an important strategic tool to help align South Africa's interests and development priorities to the overall goals of the UNFCCC.

South Africa has successfully prepared its NCs by putting in place and improving the necessary Institutional Arrangements from the initial to the second one. During these exercises, expert teams have been organized to deal with the various thematic areas of the NCs, namely the preparation of GHG inventories, evaluation of mitigation measures and options as well as assessment of impacts, vulnerability, and adaptation. This has created capacity within the organizations and Institutions that participated in the preparation of previous NCs but there are still many limitations with respect to estimation of GHG inventories, projection of climate change at regional level, development and adoption of appropriate climate impact models and development of vulnerability profiles amongst others. The Institutional Arrangements still need substantial improvements to meet the needs and standards of reporting to the Convention due to various reasons.

The level of details of reporting has risen over the years as per recent COP decisions while information may have to be captured at the provincial or district scale rather than at national level. More importantly, South Africa is a country with an extensive territory, housing a wide diversity of complex climate, socio-economic and natural systems that are difficult to encompass within a single national report. This demand for the involvement of more local institutions and organizations than in the past for building technical and infrastructural capacities as well as ensuring wider stakeholder participation in climate change related activities most appropriate for the preparation of NCs.

Some of the many scientific, technical and institutional limitations encountered during the preparation of the SNC were:

- (i) Adoption of Tier-II methods and making a good reliable well-documented GHG inventory with data disaggregated at the national level;
- (ii) Development of country-specific emission factors for different sectors;
- (iii) Adoption of multiple Global Climate Models (GCMs) and Regional Climate Models (RCMs) for generating and downscaling climate change projections to the local levels;
- (iv) Impact assessments at disaggregated levels such as agro-climatic zone, cropping systems, watershed levels, forest and other ecosystem types;
- (v) Carrying out impact assessment for medium-term periods such as to the 2030 time horizon;
- (vi) Data limitations for inventory and impact assessment models;
- (vii) Absence of models to suit forest types, cropping systems and mountainous regions of South Africa;
- (viii) Dearth of information, data and maps for preparation of vulnerability profiles to enable mainstreaming of adaptation in developmental programs;
- (ix) Estimation of climate risk related damages and costs;
- (x) Sea level rise impact assessment on infrastructure;
- (xi) Involvement of stakeholders at decentralized levels; and
- (xii) Education and sensitization of the communities to building capacities to enable adaptation decision making at decentralized levels.
- (xiii) Insufficient institutional arrangements and organizational structure for sustainably reporting to the UNFCCC.

Steps to be taken to address points (i) and (ii) during the implementation of the TNC are described as follows:

The National Inventory Unit (NIU) will work closely with key emitting sectors to develop country-specific/higher tier methods. The sectors that have been already contacted and agreed includes: cement production, Ferroalloy production, Coal Mining, Iron and Steel production, Power Generation, Petroleum Refining and Synthetic fuel production.

Working closely with the power generation sector, the NIU is preparing a study to develop country-specific emission factors for stationary combustion with emphasis on solid and liquid fuels. A study is also planned for the transport sector for liquid fuels with emphasis on CO₂, N₂O and CH₄.

With respect to points (iii)-(x) above, the department has developed a project termed the Long-Term Adaptation Scenarios (LTAS) with a 50-year time horizon. The first step of the LTAS is to improve on the local –scale projections of global and regional models working closely with the South African Weather Service (SAWS) and the Climate Systems Analysis Group (CSAG). With regards to the impact analysis approach, the LTAS follows the sectoral analysis approach building on the impact assessment work that has been done after SNC. The 50-year time horizon of the LTAS enables South Africa to assess and plan for long-term impacts of climate change. In this way, South Africa will be in a position to develop climate-resilient society. The work on LTAS will be driven by the TNC process and will form the foundation of the work on climate change adaptation and impacts. The ultimate objective of the LTAS is to inform the policy making process with a view of developing adaptation policies and measures that have a mid-to-long-term perspective.

With regard to points (xi) and (xii), the LTAS process is built on stakeholder engagement and participation. This is premised on the fact that the LTAS process has a science-policy interface that ensures that policies developed are based on solid science and that broad stakeholders are involved in that interface. In addition to the LTAS and in response specifically to point (xi), DEA has developed a toolkit called “Let’s Respond” which is designed to guide all spheres of government in a decentralized way and other stakeholders on our to respond to local impacts of climate change in a manner that encourages mainstreaming of climate change in government planning. The TNC process will be used for further roll-out of the Let’s Respond toolkit. With regards to the point on education and sensitization, DEA will achieve this in the following ways:

- Picking up the momentum from the attention that was received after COP17, DEA wants to scale-up its awareness raising initiatives by developing a climate change education and awareness raising strategy. This work shall be built into the TNC timelines.
- The department is also going to develop two “Summary for Policy Makers” (SPM) documents, one for the BUR and one for the TNC. The idea is to make the findings, lessons and key messages from these two reports accessible to policy makers and other stakeholders in the climate change space. This in turn will accelerate and aid policy making in both mitigation and adaptation. Furthermore, it will contribute to general public awareness about climate change and thus stimulate interaction with the subject.

The department is taking drastic steps to address point (xiii) mention above. A National Inventory Unit has been developed to prepare national greenhouse gas inventories annually. In addition, a project steering committee in anticipation of the TNC activities has been set-up and will meet quarterly to reflect on the progress made and provide guidance with respect to BUR, TNC and GHG Inventory activities. Furthermore, the department has collaborated with the South African Weather Service (SAWS) to develop web-based emissions reporting system called the South African Air Quality Information System (SAAQIS). This system will facilitate reporting of emissions data from key emitters. Similarly, the department has developed the National Climate Change Response Database (NCCRD) wherein all government and most of private mitigation and adaptation actions are reported and stored. To ensure that all these systems are managed effectively, the department has created a Climate Change Monitoring and Evaluation (M&E) unit which also house the National Inventory Unit (NIU). The M&E unit is responsible for coordination and compilation of activities associated with GHG Inventories, National Communications and Biennial Update Reports. During the implementation of the TNC, the M&E unit shall be extended and a proper institutional arrangement network defined. This forms part of the TNC project scope.

In parallel with the national communication process and conscious of the major importance of climate change for its citizens, South Africa has developed relatively good policies through the National Climate Change Response Strategy (NCCRS) in 2004. Within the NCCRS, the process for developing a Long-Term Mitigation Scenario (LTMS) was launched in 2006 and completed in 2007. Six broad policy themes have been adopted under the LTMS in 2008. These

policies will pave the way towards reducing GHG emissions, developing a low carbon economy, adopting renewable energy, preparing the population through proper research and development coupled with education and outreach, incorporating adaptation in development activities and ensuring the participation of State and non-State actors in the process. It is planned to develop a similar adaptation strategy while a climate change green paper is under preparation. The country has also conducted an assessment of technologies in 2007 that will be required for the mitigation of and adaptation to climate change on the basis of information available at that time. The latest document produced with the objective of integrating climate change concerns in national development is the National Climate Change response Policy (NCCRP) in 2011.

Inventories have been compiled at Tier I level for the years 1990, 1994 and 2000 using the IPCC revised 1996 or 2006 Guidelines and reported in the SNC. There is need for significant improvements for these inventory years starting with harmonizing the methodologies for all years and on an annual basis. The adaptation section was based on vulnerability assessments derived from scientific knowledge rather than concrete studies. There is still a lack of quantification of the physical impacts as well as the higher order effects on the economy and society. Many of the studies were those used for the preparation of the INC. The SNC presents very good mitigation policies for all sectors of the economy including a myriad of options for maintaining only a 2°C rise by 2050. Disaggregation should be contemplated to better frame implementation of the long list of measures and including socio-economic considerations especially when it comes to carbon taxes or other measures that may have a direct bearing on the livelihood of the population. Broad stakeholder consultations led to the development of the Global Change Grand Challenge (GCGC) research plan in 2010. Based on this document that was presented in the SNC and other gaps identified during the preparation of the SNC, challenges still exist to understand climate change and formulate appropriate adaptation and mitigation actions as a result of lack of capacity and research infrastructure.

Through this proposed full size project, South Africa intends to strengthen institutional, technical and analytical capacities through the preparation of its TNC with the financial assistance from the GEF. The salient features of the proposed TNC when compared with the previous NCs will be:

- (i) Improvement in the National GHG inventory estimates and reduced uncertainty by shifting to tier II methodologies, while adopting the relevant scientific elements of IPCC GHG Inventory Guidelines of 2006;
- (ii) Reliable climate projections at regional level using multiple climate models;
- (iii) Reliable assessment of climate change impacts using multiple GCM scenarios and multiple impact assessment models at district/regional level; different cropping systems, forest types, watersheds, coastal settlements, etc.;
- (iv) Spatial vulnerability indices and profiles for different sectors and regions and at decentralized levels such as at district level for different sectors;
- (v) Development of an adaptation framework, practices to enable mainstreaming of adaptation into developmental programs, estimates of the costs and benefits of adaptation and mitigation programs
- (vi) Development of sustained institutional and technical capacities for continued preparation of GHG Inventories and National Communications, and other new information required under the aegis of the Convention.

UNDAF Mainstreaming

In preparing the TNC, 1BUR, and the Technology Needs Assessment (TNA), South Africa will further identify national priorities in the areas of climate change adaptation and mitigation consistent with its national climate change response strategy. The UN will then be able to take these national priorities and mainstream them into their UNDAFs.

COMPONENT I: South Africa's National Circumstances

This component will consist in the updating of the information provided in the SNC up to the year 2012 to reflect more recent conditions and situations at the national and provincial levels with respect to development plans. Emphasis will be laid on priorities and objectives of the development plans that serve for addressing issues relating to climate change. Such information provided on national circumstances is critical for understanding a country's vulnerability, its capacity for adapting or to build resilience to the adverse effects of climate change, in addition to mitigating GHG emissions within the broader context of sustainable development. The National Circumstances component will also provide information on the role of South Africa within the regional context on issues relating to climate change. Additionally,

information will be included on existing Institutional Arrangements as well as any modification to the existing framework to include other ministries, agencies and institutions to enhance effective implementation of the Convention and reporting thereon to the COP.

Information will be provided on the geography, climate, environment and socio-economic situation as well as the Institutional Arrangements under this component. Some of these are:

- Demographic and socio-economic indicators, such as occupation, rural-urban distribution of the population, welfare parameters and economic growth;
- Land use pattern, area under different cropping systems, forest types and soil types;
- Water resources, hydrological and river basins, water availability, quality and use;
- Climate systems, weather parameters such as rainfall, temperature, solar radiation and frost;
- Climate sensitive sectors, vulnerable resources, populations and regions;
- The developmental policies and programs at national and provincial levels for addressing climate change and its adverse impacts;
- The existing institutional arrangements relevant to the preparation of the NC on a periodic basis.

Information need to be gathered and generated in such a way as to take stock of progress achieved towards addressing issues relating to climate change. The current institutional arrangements for the preparation of the NC will be analyzed with the aim of improving it, as there are still many scientific, technical and institutional limitations. In order to effectively address these limitations and set up a more efficient organizational structure for the preparation of the NC to the standard required by the COP, the abovementioned sets of information are essential. The more complete the information gathered is in relation to climate change, the better will be the reporting. Thus, this is a very important activity to guide the process of preparing the Third National Communication, especially in reporting information that reflects effective actions and activities. This component will not be limited to a simple update of the national circumstances from the Second National Communications, as the national climate change agenda has evolved rather significantly in the past few years. South Africa has adopted a multi-pronged approach to deal with climate change through the preparation of policies and strategies that have translated into their inclusion in the development plans. Numerous initiatives and activities have been implemented under these development plans to enable the country to adapt to the adverse effects of climate change and also reduce GHG emissions while increasing sink capacities. Therefore, an updated report of the national circumstances, giving a true picture of the level and success of mainstreaming of climate change into national development plans can only help in strengthening this process. The allocation of appropriate financial resources will ensure the quality of the National Circumstances component in the context of national climate change strategies.

Component II: National GHG Inventory:

The inventory of GHG emissions will be compiled and made available for the period 2000 to 2012. This will entail re-computing emissions for the previous years where the Revised IPCC 1996 Guidelines were used. The latest IPCC guidelines (2006) will be adopted to include good practices and for reducing the level of uncertainties. The inventory would cover the following sectors:

- Energy Sector;
- Industrial Processes Sector;
- Agriculture, Forest and Land-Use Change Sector; and
- Waste Sector.

The GHG inventory compilation will involve the following steps:

Development of National GHG inventory system: Previous inventories have been prepared on an ad-hoc basis to meet the reporting requirements resulting in no sustainable system having been developed over that lapse of time. Even if existing institutions engaged in the compilation of GHG inventories within the framework of the preparation of earlier national communications have acquired some knowledge in this field, this is insufficient to meet the new reporting requirements. The latter and the process have evolved to such a degree that it now dictates for a permanent structure to sustainably handle GHG inventory compilations on a continuous basis. Hence, it is essential to set up the necessary

Institutional Arrangements, to be as exhaustive as possible for producing transparent, consistent, comparable, complete and accurate inventories.

GoSA, being realistic of the importance of GHG inventory compilation, has started to set a national system by having this responsibility allocated to its Directorate called the National Inventory Unit responsible for the South African Air Quality Information System (SAAQIS) that falls under the Department of Environmental Affairs to produce National GHG Inventories. The Directorate has started to work on issues relating to the continuous production of good quality transparent inventories such as:

- (a) Institutional arrangements capturing the widest range of stakeholders for their active participation in the process;
- (b) Establish a user-friendly database for archiving all inventory data including methodological issues and documentation;
- (c) Develop procedures for a continuous update of the database; and
- (d) Provide for multi-user access and multiple uses

SAAQIS will address all the issues related to the production of the inventory such as activity data collection including quality control (QC), choice of methods and computation of emissions and sinks, documentation, archiving and continuous updating of the database, uncertainty assessments and reporting. Other management issues of the GHG inventories comprise the organization of quality assurance (QA), drawing improvement plans and working on them as well as identifying constraints and gaps.

Under the TNC, the following strategies are proposed:

- (a) SAAQIS will set in place the system for capturing the latest sets of quality controlled activity data at national level for computing emissions and sinks;
- (b) Tier-II methodologies will be adopted for most of the sectors as the SNC coverage at this level was only to a limited extent. Thus, the GHG inventory under the TNC will gain in accuracy;
- (c) Further strengthen and streamline the existing institutional structure towards setting up a sustainable GHG Inventory Management System for continuous compilation of emissions and sinks;
- (d) Institutionalize documentation and reporting to meet UNFCCC requirements;
- (e) Quality Assurance has been implemented for all inventory years;
- (f) A system is in place to take on board updating of methodologies and related information in a sustained manner; and
- (g) A database with all activity data and related information and computations has been created for all inventory years.

In other words, the TNC will pave the way for the sustained continuous production and reporting of GHG estimates and will constitute a major improvement over the SNC. The system will enable activity data gaps identified in inventory preparation during the SNC to be filled while new datasets will be collected to move from Tier I to Tier II. South Africa will be compliant with good practices and trends of emissions will be available for more than a decade to track changes within the development sectors which will facilitate mitigation analysis. In order to meet this objective, there is need for substantial financial resources especially for the management system to be in place at regional and national levels, to move to Tier II methodologies and be good practice compliant.

National Activity Data and Emissions Factors: Transparent, accurate, consistent, comparable and complete inventories can only be produced with good reliable activity data and appropriate emission factors. In order to move to the higher Tier II, data collection will be more intensive to capture these at a more disaggregated level. The Sustainable GHG Inventory Management System will involve a wide group of stakeholders for collecting quality activity data and institutions with varied research experience to improve emission factors so that they may suit national circumstances and also look at the various aspects of inventory improvement and development. Also a national emission factor database could be started for key sources and country specific emission factors developed where needed based on field studies; laboratory measurements; and, surveys of industries, municipalities, households, farms, etc. The database would be validated along with uncertainty associated with the emission factors.

Tier II methodologies: Most of the IPCC categories have been addressed at Tier I level in the SNC. It is the intent of South Africa to step up by adopting Tier II for all IPCC categories. However this will require significant efforts to

capture the disaggregated data at district and provincial levels prior to pooling these to the national level. Situations may also demand that emissions or sinks be estimated at the district or provincial level as well as on an ecosystem or crop type basis just to cite a few examples. Emission factors will be scrutinized for their appropriateness and as far as possible they will be developed or modified to suit national circumstances. This is however a serious challenge and will be based on the experience and capacity built during the previous NC preparations and on academics from the universities and researchers. Stepping up to Tier II will potentially lead to a reduction of uncertainties and an inventory of much improved quality for South Africa. Therefore, substantial funding will be required to cover the implementation of activities linked with activity data collection and improvement of emission factors.

Adoption of IPCC 2006 GHG Inventory Guidelines: The latest IPCC guidelines and good practice guidance recommended by the UNFCCC would be adopted. Moreover, the scientific and methodological improvements suggested in the IPCC GHG Inventory Guidelines-2006 will be extended to all years covered for in the TNC.

Quality Assurance and Quality Control (QA/QC): SAAQIS will complete the establishment and implementation of sustained QA/QC procedures as recommended by the IPCC guidelines and good practice guidance during the compilation of inventory for years to be covered by the TNC.

Uncertainty reduction and estimation: The GHG inventory in some of the sectors such as LULUCF and agriculture is characterized by high uncertainty. This resulted from activity being of relatively poor quality and inappropriate emission factors. Land use changes will this time be tracked through remote sensing technology over a well-defined period of time. This will certainly reduce the level of uncertainty in addition to extension of QA/QC procedures and Tier II adoption.

Transport related emissions data is receiving a special focus due to the complexity of this sectors and its relevance to other environmental areas such as air pollution and environmental degradation. The Department of Environmental Affairs (DEA) together with Department of Transport (DOT) has set-up a working-group to improve activity data for the transport sector. The working-group will oversee the implementation of a project aimed at data collection for a tier 3 modeling approach for transport emissions. In addition, the DEA is working very closely with the South African Petroleum Industry Association (SAPIA) to determine fuels shares for all demand-side sectors that uses liquid fuels. Parallel to these two processes, DEA has will initiate a study in 2014 to develop emission factors for the road transportation sector. In terms of fuel consumption for civil aviation and domestic navigation and its bunker fuels, the Department is working closely with Airports Company South Africa (ACSA) for Civil Aviation and Transnet for marine navigation and railway sector to develop inventory-ready data so that emissions estimates for this sector can be improved.

COMPONENT III: Measures to adapt to climate change

This component in the SNC addressed the climate and its impacts on the Water Resources, Agriculture, Rangelands and Forestry, Terrestrial Biodiversity, Coastal and Marine Environment, Invasive Alien Species and Human Health to end with Human Livelihoods and Social Aspects. While the sectoral coverage was quite extensive, results of modeled climate change projections date back to a decade and the impacts on the different socio-economic sectors were mostly drawn from basic scientific studies rather than vulnerability assessments conducted specifically for that purpose. These scientific studies very often looked at isolated parameters and thus lacked the holistic approach that is essential to integrate all factors affecting the system, including cross-cutting issues and higher order effects. Economics were also not covered in most of the scientific studies. This thematic area will be fully revisited and updated during the preparation of the TNC.

Within the TNC, this component will aim at improved assessment of climate change impacts on, and vulnerability of different socio-economic sectors and resources at national or decentralized level, ecosystems, cropping systems and natural resources as well as development of adaptation strategies and practices. Multiple climate model projections and multiple impact assessment models will be adopted for realistic assessment of climate change impacts based on availability of capacity and resources. Risk and vulnerability profiles will be developed at the appropriate geographic scale to facilitate mainstreaming of adaptation into national, provincial or district level developmental programs and

projects. The focus will be on the short term (2030) and medium (2050) while long term (2100) analysis will be included for infrastructural development and where sea level rise will be a possible impact factor.

Given the variations in the projections for the future climate, multiple GCMs will be adopted to make reliable projections along with uncertainty estimates for the TNC. Climate change scenarios will be produced at finer resolutions by down-scaling the GCM outputs to lower grid scales such as 20 x 25 km². Climate variability and climate projections would be determined at the appropriate territorial scale for the main parameters temperature and rainfall. The latter will be used to also project floods and droughts while temperature will serve to project cold and warm episodes as well as frequency and duration of frost.

The impact assessments would cover all the sectors wherever possible using the most appropriate approaches, methodologies and tools, including multiple models for the following sectors:

- Agriculture (Commercial and subsistence including different cropping systems);
- Terrestrial ecosystems (Forests, Grasslands, karoos, and freshwater);
- Water Resources (hydrological and river basins, watersheds);
- Coastal Zones;
- Fisheries and aquaculture;
- Infrastructure (including mining) and Settlements; and
- Health.

Climate impacts would be assessed at the finest possible scale to facilitate adaptation strategy formulation. The scale to be adopted will be primarily determined by the GCM and the downscaled RCM results. To enable development and implementation of urgent adaptation projects, the focus of impact assessment will be for the short term period, along with impact assessments for medium and long term for better policy formulation. Provided the capacity, resources and timeframe allow for it, the most advanced models available will be adopted for impact assessment and wherever possible multiple models will be used for better decision-making. Vulnerability profiles will be developed based on vulnerability indices for different sectors, ecosystems, crops and activity areas at disaggregated levels and then combined to reflect the country's vulnerability. Spatial vulnerability profiles on a GIS format could be developed at the appropriate scale with ranking of the most vulnerable areas well delineated for factors such as droughts, floods, and landslides to prevent loss of lives and livelihoods. A good indication of spatial impacts can be very useful for planning development. Vulnerability indices could be developed for a set of indicators identified for each sector. These indicators could be quantified, normalized and aggregated to obtain composite vulnerability indices. This method will integrate the combination of more than a single impact factor as well as indirect ones, thus enabling more informed decision.

Based on the impacts and vulnerability assessments, adaptation measures will be identified and assessed. These will then be further analyzed for their potential for adoption according to the country or community circumstances. The adaptive capacity of the natural and socioeconomic systems, the institutions and local communities (farmers, coastal fishermen and forest dwellers) will also be assessed. Priority adaptation measures and sectoral strategies will be prioritized on a range of socio-economic parameters in line with the sustainable development agenda of the country. A National Adaptation Strategy will be developed incorporating the impact assessment, vulnerability profile and indices, adaptive capacity and participation of different stakeholders. The strategy document will also include a list of project briefs with costs and timeframe for implementation. The National Adaptation Strategy shall be developed as part of the LTAS process described in section A.4 above.

COMPONENT IV: Measures to mitigate climate change:

GoSA invested in producing good policies through the well-elaborated long term mitigation strategy (LTMS) which was followed by the technology needs assessment of the country. The SNC pulled on these documents and provided an extensive and exhaustive analysis of the mitigation potential that South Africa could achieve by the year 2050. A myriad of options were presented for all IPCC sectors with the aim of keeping the temperature rise to 2°C and the three modeled scenarios revealed potential reductions of 43%, 64% and 76% by 2050. Fifty-six mitigation projects susceptible to bring a reduction of 25 million tons of CO₂e by 2050 are listed. The country is also active on the CDM front with more than a hundred projects submitted for approval. Barriers, opportunities and support required for

implementing the LTMS are given and as well it was brought forward that the country will not be able to achieve the strategy on its own. GoSA has also setup a Directorate responsible for Monitoring and Evaluation within its Department of Environmental Affairs to promote mitigation while also tracking their performance. In this line, this Directorate is developing an MRV system for the country under bilateral support.

However, these initiatives date back to more than 5 years now and the situation at national and international levels have evolved significantly with consequent changes in some areas. Science has moved and new more performing environmentally sustainable technologies are on the market or in the pipeline for commercial adoption. All these factors necessitate that the mitigation analysis be revisited. While the policy will be maintained as such, the options will have to be scrutinized anew in relation to mitigation potential and costs primarily and a prioritization exercise may be warranted to match the national objectives of a low carbon economy with those of the international community while ensuring a better livelihood for its citizens. The baselines will be updated using better methodologies and emission factors and the emission projections updated on new sets of economic and social drivers, and assumptions following the world economic downturn. The projects will have to be further detailed in terms of which type of support, financial, technical or technological, will be needed and within what timeframe to inform potential partners for action towards implementation. In-depth stakeholder consultations will be held to buy in the private sector and wider groups for their participation within the mitigation strategy. A list of project briefs with costs will be prepared and included in the TNC.

TNC will expand and update, including the mitigation actions in place in the period 2007-2013, as well as presenting related policy topics, such as the National Development Plan and sectoral activities developed to date.

COMPONENT V: Other information relevant to the Convention

This component will cover other information cutting across the main thematic areas; these cross-cutting issues have received differential attention during the preparation of the SNC. The intent during the preparation of the TNC is to sufficiently invest in these issues for a good coverage. The results can be very rewarding to complement and support initiatives and actions aiming at reducing emissions and increasing sinks, and adapting to the adverse impacts of climate change.

Transfer of technologies: The Technology Needs Assessment will be reviewed and updated to the most recent year for adaptation and mitigation technologies, their transfer needs, including financial and technological limitations.

The methodology to be used will be that of the updated UNDP/GEF/UNFCCC handbook *Conducting Technology Needs Assessments for Climate Change*. The sectors targeted will be those offering the highest mitigation potential (energy industries, transport and AFOLU) based on the latest GHG inventory results and most vulnerable to climate change (Agriculture, Forest, health, water resources and infrastructure). During the process of updating the first TNA of South Africa within the framework of this project, experts undertaking the assessment will regularly liaise with the Pilot African Technology Finance Centre to help mobilize financing for clean technology by incorporating technology considerations into national investment plans and strategies, and by piloting innovative financing mechanisms. National experts will tap into the Network to obtain complementary technical support and policy advice, as well as share knowledge and experiences. In this way the project will avoid duplications and enhance the quality and level of the assessment. Concurrently, findings of the TNA of South Africa will be available to the pilot project and in so doing, exploit fully the obvious synergies between the two GEF funded projects.

Research and Systematic Observation: South Africa is known as a country on the forefront of research in the region but there is still a lack of projects specific to climate change to enlighten the country and guide its choices and decision-making. Research activities within the framework of the TNC will consist of a mix of basic studies to advance our knowledge of the climate change science and practical studies aimed at coping with climate change. One major component will be assessing and evaluating impacts of projected climate change on socio-economic sectors and natural resources and systems to optimize adaptation and future development of the country. Research will concern new technologies as well as development of emission factors for improving the quality of the GHG inventory. Observing systems will be assessed for further improvements and needs.

Education, Training and Public Awareness: The plan is to review the present situation and promote training and public awareness through sensitization and awareness creation campaigns at decentralized levels and aiming at all segments of the population. Relevant audio-visual materials will be prepared to enhance the transfer of information to the wider public on climate change.

Capacity Building: Analysis of the capacity building needs to meet the country's targets for implementation and monitoring of climate change mitigation-adaptation activities, GHG inventory and NC preparation, technology needs assessments and transfer, education, training and public awareness and research with regard to climate change.

Information and Networking: Activities under the TNC will gather information on the country's efforts to promote information sharing among and within countries in the region and also possibilities for participation in and contribution to networks. The goal will be to strengthen existing initiatives and launch new ones.

Constraints, Gaps and Related Needs: Special efforts will be devoted to identifying and documenting all constraints and gaps encountered during the preparation of the TNC. Activities to overcome these will be reported. As well, information on financial, technical and capacity needs for measures and programs envisaged under the Convention and for continuous production of NCs will be collected and provided in the TNC.

Component VI: Support for completion of the South Africa Biennial Update Report (2014) and its submission to the UNFCCC

This component consists of seven sub components that will assist the Republic of South Africa to prepare and submit its first Biennial Update Report (BUR) to the UNFCCC. Pursuant to decision 17/CP.1 at Durban, South Africa, the BUR will cover the updating of the following: (a) national circumstances; (b) the national inventory of energy activities, industrial processes, agricultural activities, land use change and forestry activities (LUCF), and waste sector activities; (c) information on mitigation; (d) Constraints and gaps, and related financial, technical and capacity needs; (e) information on the level of support received to enable the preparation and submission of BUR; (f) domestic measurement reporting and verification.

1. **National Circumstances:** The National Circumstances will be updated to reflect national and regional priorities to address climate change concerns within the framework of national development programmes, plans and strategies. Information will be provided on the geography, climate, environmental and socio-economic profiles of the country with emphasis on sensitivity to climate change and climate variability. This chapter will also include a thorough description of the institutional arrangements adopted for producing the Biennial Update Report on a regular basis and the level of support received for preparation of BUR.
2. **National Inventory of GHGs:** The GHG inventory and trends will be compiled for the period 2001 - 2010 with the quality of inventory improved from Tier 1 to Tier 2 wherever possible. Institutional arrangements will be developed and put in place for the preparation of inventories on a regular basis while enhancing institutional capacity. GHG emission projections will be generated for the period 2020 to 2050.
3. **Information on climate change mitigation actions:** Mitigation actions and their impacts, including associated methodologies, assumptions and implementation status will be described in accordance with reporting guidelines. The emphasis will be on the preparation of a status report on the national arrangements put in place for the implementation of NAMAs including the establishment of a national registry, a template for reporting on mitigation actions developed, the status of implementation of mitigation actions and results obtained will be compiled and presented in a tabular format, a status report on the participation of the country in international carbon market mechanisms and the establishment of a database on all mitigation actions (policies, measures) containing (a) a description of on-going and planned mitigation actions, including information on the nature of the action, coverage (i.e. sectors and gases); (b) methodologies and assumptions, (c) objectives of actions and steps taken or envisaged to achieve that action. A forecast/projections for business as usual and different socio-economic scenarios for the period 2020 to 2050 will be completed.
4. **Domestic measurement reporting and verification** A framework for the continuous assessment and reporting of constraints, gaps and related financial, technical and capacity needs and support needed and received from the GEF, Annex II Parties and other developed country Parties, the GCF and multilateral institutions for GHG mitigation activities including the preparation of BURs is established.
5. **Any other information:** Information on non-climate related impacts, opportunities and benefits on sustainable development objectives will be collected, analyzed and reported.
6. **Monitoring, reporting and preparation of financial audits:** Project financial and progress reports prepared and submitted promptly for effective implementation of the BUR preparation.
7. **Publication and submission of BUR1:** South Africa's first BUR will be prepared, reviewed, published and submitted to UNFCCC in line with reporting guidelines

Component VII: Third National Communication report preparation and related studies

The draft national communication report will be presented at workshops to a wide range of different stakeholders, including particularly researchers and policymakers for their feedback. Apart from the required components of NCs (National circumstances, GHG inventory, vulnerability and adaptation etc.), the descriptions of the NC process/methodology followed, activities and participation of different organizations would be included in the TNC report. After the expert consultations, the TNC report will be finalized and submitted for GOSA to approve, and the approved document will be finally submitted to UNFCCC. A number of technical reports, such as the GHG inventories, National Adaptation Plan and other technical activity reports covering key issues prepared within the framework of the TNC will also be shared with the local institutions/government involved.

It is also intended to prepare summaries of the GHG inventory and TNC report for circulation to the widest possible groups of stakeholders. These two summaries will be circulated to primary and secondary schools, district and village councils and public libraries, NGOs and other civil society organizations, state and parastatal bodies, and government departments while academic institutions and research organizations will be given the full electronic copies of both documents.

A. 5. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project: NA

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:

Based on the experiences from the preparation of the two previous NCs, no major risks are anticipated. Further, the GOSA is fully committed to addressing climate change concerns at the national and global levels as evidenced by the NCCRS and other policies developed to-date to mainstream climate change into its development plans and strategies. Some of the potential minor risks could be:

Risk Type	Risk Description	Risk Rating	Mitigation Measure
Political	Low commitment and support	Low due to political stability and obligations of GoSA	Strengthen action at the level of the NCCRS and sensitization of policymakers
Environmental	Natural calamities hitting the country	Low as this is not recurrent and whenever it is experienced, only part of the country is affected	Better coordination of efforts between Institutions for risk assessment, improve warning systems to mitigate impacts and increase resilience to these extreme events
Technical Capacity	Availability of the required capacity	Low as Technical capacities do exist in the country but may not be available when it is needed.	Prepare technical capacity needs well in advance so as to secure these, the fallback position will be to employ Consultants on the international market if needed
Financial	Availability at the required time	Low as funds earmarked will be available from the donor agencies, bilateral partners and GoSA as pledged.	The only slight issue may be availability at the right moment that will be mitigated by appropriate management and coordination with all partners.
Operational	Timeframe not met	Medium as some factors such as environmental, natural and logistical hazards and unforeseen circumstances may delay some of the processes and steps.	Establish robust Institutional Arrangements and constitute solid technical working groups for delivering on well-defined items of the TNC

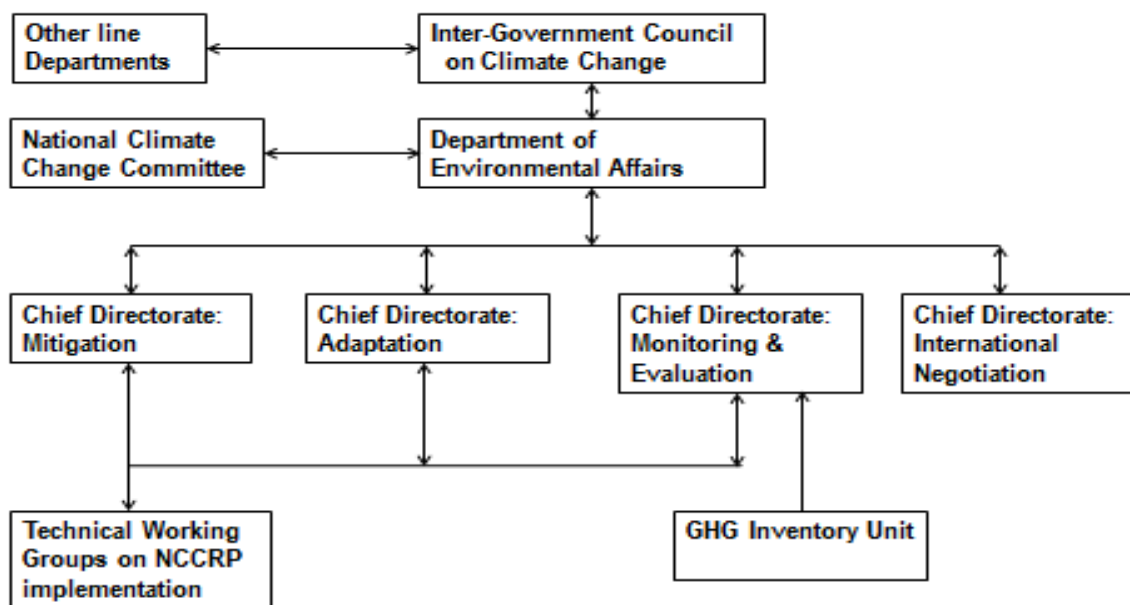
A.7. Coordination with other relevant GEF financed initiatives

The proposed project will be designed and implemented in coordination with several other GEF’s strategic area projects under the Multilateral Environmental Agreements and other initiatives related to conservation of ecosystems, wildlife preservation and forest management. This project and its outcomes require coordination and linkages with other Government initiatives related to international priorities such as: the Convention on Biological Diversity (CBD), the Convention to Combat Desertification and Drought (UNCCD), and the achievement of the MDGs, among others. Additionally, there will be coordination with on-going and future national adaptation projects while the LTMS will pave the way for the formulation of a national low carbon economy strategy in South Africa. With regard to the latter, the country is also developing its Measurable, Reportable and Verifiable (MRV) system. South Africa is also participating in the CD-REDD II initiative for better preservation of forests.

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1 Describe how the stakeholders will be engaged in project implementation.

South Africa has in place a series of Directorates within its Department of Environmental Affairs on a permanent basis to oversee the different thematic areas of the National Communication as well as implementing the Convention. Thus, no problem at all is anticipated in managing and monitoring the implementation of the country activities. Please see **Figure** below depicting the organogram of the institutional arrangements.



All activities will be implemented by the various **Directorates of the Department of Environmental Affairs** in collaboration with other stakeholders as depicted below. The latter will contribute at different levels of the System within a transparent country driven approach. With regard to GHG inventories, the institutional arrangements existing presently will be further enhanced and consolidated to develop a GHG inventory management system within the Monitoring and Evaluation Directorate of the Department of Environmental Affairs to oversee the regular production of inventories. Capacity enhancement started within the framework of preparation of the last National Inventory Report and will continue with the compilation of GHG inventories for the TNC and BUR.

Department of Environmental Affairs will be act as Implementing and Executing Agency for the management and administration of the TNC project. South African Weather Service will be responsible for the production of long term climate trends and generation of climate change and Sea Level Rise scenarios for impact assessments. **Department of Energy and ESKOM** will be the main Collaborator for inventory and mitigation in the energy sector.

Department of Agriculture, Forest and Fisheries will be the main collaborator for inventory, adaptation and mitigation in the Agriculture, Forest and Fisheries sectors as appropriate.

Department of Mineral Resources will be the main Collaborator for inventory and mitigation in the mineral resources sector.

Department of National Treasury will be the main collaborator in related fiscal policies and measures. **Agricultural Research Council** will Support impact assessments, support mitigation analysis and derivation of emission factors.

Council for Scientific and Industrial Research (CSIR), the Human Sciences Research Council (HSRC), South African National Energy Research Institute (SANERI), Department of Science and Technology, Research Institutions, South African National Biodiversity Institute (SANBI); Sustainability Institute (SI) and the Energy Research Centre (ERC) will Conduct studies in relation to impact assessments, evaluate adaptation and/or mitigation measures and collaborate in deriving nationally appropriate emission factors for improving the GHG inventory; evaluate RSO needs for meeting climate change challenges; plan the inclusion of climate change in tertiary and distance education programs.

Department of Transport (Road, Rail, Air, and Marine) will be the main Collaborator for inventory and mitigation in the transport sector.

Economic Development Department will Support the impact assessment and studies on adaptation, mitigation and the green economy.

Department of Environmental Affairs will compile inventory on waste, oversee impact assessment, adaptation/mitigation assessment and awareness raising.

Department of Cooperative Governance and Traditional Affairs and South African Local Government Association will provide Support for the impact assessment and studies on adaptation.

Department of Water Affairs will Support the impact assessment and studies on adaptation in the water resources sector.

NGOs, CSOs, CBOs and indigenous people will act as partners for Informal education and Public awareness as well as providing the necessary support for developing community based adaptation.

B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCE/SCCF):

South Africa is a country endowed with natural resources that are directly or indirectly responsible for the livelihood of the population and its socio-economic development. The adverse effects of climate change have been clearly demonstrated in both the INC and SNC with increasing negative impacts on water resources, agriculture, forestry, ecosystems, biodiversity, the coastal zone, health and livelihoods as well as various economic engines. Moreover, South Africa has the responsibility to continue leading the region while playing its role in guaranteeing food security and energy supply to many of its neighbours. The TNC will contribute precisely to improve in the identification of the most appropriate mitigation and adaptation measures, based on better more disaggregated studies and information. Dissemination of this information will also be improved to buy in more stakeholders, including women for better implementing actions at the local level to meet the objectives of the Convention. In the course of the coming years, the economic, social and environmental resilience, or capacity of recovery, to climate change impacts will depend on the initiatives that the society and public policies and programs implement towards restoring and maintaining the integrity of economic and ecological systems. Countries will have to reorient their development towards sustainability with special emphasis on a low carbon economy. The TNC will be a valuable tool of updated and detailed information for decision makers and stakeholders to this end. South Africa is a democratic country practicing gender equality and it will continue in this direction. This project will help to bring climate-related gender issues to the forefront, particularly in the areas of adaptation and mitigation measures and instruments. To achieve this objective, implementation of project activities will be guided not only by the UNDP and

UNEP gender mainstreaming guidelines for climate change, but also by the GEF policies on environmental and social safeguards and gender mainstreaming. The rural population with a subsistent way of life and where females usually head households will receive particular attention in the TNC due to their relatively higher vulnerability compared to urban population. The TNC will enable GOSA to meet its reporting obligation to the Convention on the latest status on implementation

B.3. Explain how cost-effectiveness is reflected in the project design:

UNEP will support the development of South Africa's TNC and Initial BUR. As an implementing agency of the GEF, UNEP can ensure a very streamlined approval and fund disbursement process and with multiple benefits compared to the single-country application approach, to support South Africa in the preparation of its Third National Communication (TNC) and Biennial Update Report (BUR). Thus, the project approval process and start-up of activities will be accelerated, and as a result, the project cycle is expedited, saving significant time to countries and minimizing the gaps between national communication projects.

The project is cost-effective as it targets to strengthen existing human and institutional capacities to be used for current and future reporting. Information/data from previous national communications is used as reference material for subsequent national communications reporting, avoiding duplication of effort and promoting efficient use of financial and human resources. The technical backstopping that UNEP has provided to countries over the years will serve as a basis to improve the quality of the national reporting, which will result in more comprehensive national reports to guide countries in developing their sectoral strategies.

Last but not least, though countries are exempted from mandatory co-financing for enabling activities, as the full cost of funding is provided for by the GEF, the Government of South Africa will contribute an in-kind contribution of up to US\$ 1,255,000 for project implementation.

C. DESCRIBE THE BUDGETED M & E PLAN:

The project will be monitored through the following M & E activities:

Project start:

A Project Inception Workshop (PIW) will be held within the first 2 months of the start of the project. The PIW will be attended by all relevant stakeholders including those with assigned roles in the project organization structure. The Inception Workshop is crucial to building ownership for the project results and to review and agree on the first year annual work plan. The Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

Quarterly:

Technical progress reports and financial reports shall be reviewed by UNEP Task Manager and Fund Management Officer.

Periodic Monitoring through discussions with key partners:

UNEP task manager will conduct periodic monitoring activities based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess status of implementation of project. The monitoring of project activities will identify areas of improvements and will make recommendations on how to address gaps in project implementation.

End of Project and auditing:

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also set out some recommendations necessary to ensure sustainability and replicability of the project's results. Audit on project will follow UNEP Financial Regulations and Rules and applicable Audit policies.

Audit on project will follow UNEP Financial Regulations and Rules and applicable Audit policies.

Learning and knowledge sharing:

Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

Risk Analysis

Based on the experiences from the preparation of the INC and SNC, no major risks are anticipated. UNEP has worked with the DEA, as the designated Executing Agency for preparation of two National Communications (NC) reports for South Africa. These projects - the Initial and Second National Communications, have been successfully completed and reports submitted to the UNFCCC. Over this time, the DEA has restructured its operations in an effort to improve its efficiency in climate change reporting over the time they have executed successive NC projects. Different Directorates within the DEA have been allocated responsibilities for preparing different components of the NC report. In addition, the DEA has strengthened its collaboration with other key actors/sectors in climate change to facilitate uptake and integration of project recommendations into national planning processes. It is expected, therefore, that DEA will successfully execute South Africa's Third NC & BUR1 project, drawing from the institutional structures and mechanisms already developed.

Further, the Government of South Africa is fully committed to addressing climate change concerns at the national and global levels as evidenced by the NCCRS and other policies developed to date to mainstream climate change into its development plans and strategies. A detailed risk analysis will be included during the preparation of the project implementation plan.

Mid-term Review and Terminal Evaluation

In-line with the GEF Evaluation requirements the project will be subject to an independent Terminal Evaluation (TE). Additionally, a Mid-Term Review will be commissioned and launched by the project manager before the project reaches its mid-point. The terminal Evaluation will be commissioned no earlier than 6 months before, or later than 6 months after operational completion of the project. The Terminal Evaluation will be managed by UNEP Evaluation Office. Key decision points in the evaluation process will include finalisation of Evaluation ToRs, selection of independent evaluation consultants and acceptance of draft and final reports. The TE will provide an independent assessment of project performance in terms of relevance, effectiveness and efficiency, and determine the likelihood of impact and sustainability. It will have two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned among UNEP and its executing partner. The direct costs of the evaluation will be charged against the project evaluation budget. The evaluation findings will be based on a wide consultation process with the South Africa government. The evaluation will, therefore, not only assess the impacts of the country's work to prepare its TNC, TNA and BUR, but will also identify key lessons learned. The TE report will be sent to project stakeholders for comment. Formal comments on the report will be shared by the Evaluation Offices in an open and transparent manner. The project performance will be assessed against standard evaluation criteria using a six point rating scheme. The evaluation report will be publically disclosed and may be followed by a recommendation compliance process (see Annex G for M & E Budget and Work plan).


GEF Tracking Tool for Climate Change Mitigation Projects attached as Annex J.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this form. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Zaheer Fakir	GEF Operational Focal Point for South Africa	DEPARTMENT OF ENVIRONMENTAL AFFAIRS	01/17/2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.					
Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Brennan VanDyke Director, GEF Coordination Office, UNEP		July 30, 2014	George Manful Task Manager	+25420762508 5	george.manful@unep.org

LIST OF ANNEXES

Annex A: Project Results Framework

Annex B: Responses to Project Reviews from GEF Secretariat and GEF Agencies

Annex C: Status of Implementation of Project Preparation Activities and the use of Funds

Annex D: Calendar of Expected Reflows

Annex E: Consultants to be hired

Annex F-1: Detailed Budget in UNEP Format

Annex F-2: Detailed Co-finance Budget

Annex G: Monitoring and Evaluation Budget and Work plan

Annex H: Initial BUR and TNC Climate Change Tracking Tool (attached as an excel spreadsheet)

Annex I: OFP Endorsement Letter

Annex J -1: Co-financing Commitment Letter from South Africa

Annex J-2: Co-financing Commitment Letter from UNEP

Annex K: Checklist for Environmental and Social Issues

Annex L: Acronyms and Abbreviations

ANNEX A: PROJECT RESULTS FRAMEWORK.

Project Objective: To prepare the Third National Communication and first Biennial Update Report of South Africa and enable the country fulfill its obligations under the UNFCCC, in accordance with Articles 4.1 and 12.1 of the Convention while strengthening its capacity to integrate climate change concerns into national and sectoral development plans and priorities through the implementation of the national climate change response strategy (NCCRP).

Project purpose:

- Strengthen the capacity of the country to deal with climate change issues;
- Integrate climate change concerns into national and sectoral development plans and priorities through the implementation of the national climate change response strategy (NCCRS);
- Produce good quality TNC and BUR1 reports.

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
Project Component 1: National circumstances					
Outcome 1.1: National Circumstances of South Africa with regard to climate change challenges reviewed, updated and officially approved	1.1 The latest information on the socio-economic and environmental situation with regard to climate change, the number of institutions involved and the framework for implementing the Convention collated and documented	1.1 National circumstances chapter of SNC submitted to UNFCCC in 2011	1.1.1 Prepare a detailed report of national and regional priorities to address climate change concerns within the framework of national development programmes, plans and strategies 1.1.2 Describe the geography, climate, environmental and socio-economic profiles of the country with emphasis on sensitivity to climate change and climate variability 1.1.3 Develop and establish robust institutional arrangements for producing the third national communications including those related to the	1.1 Information provided on the various sections of the national circumstances chapter of the TNC submitted to the UNFCCC	Information needed to describe national circumstances may not be available on time

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
			<p>compilation of GHG inventories and the preparation of Biennial Update Report</p> <p>1.1.4 Describe the national institutional framework developed for the effective implementation of measures to meet the objectives of the Convention</p> <p>1.1.5 Appraise and launch the Third National Communication with relevant stakeholders</p> <p>1.1.6 Explain and launch the Biennial Update Report introduced with relevant stakeholders</p>		
Project Component 2: GHG Inventories					
<p>Outcome 2.1 Information on national GHG inventory and trends provided for the period 2011 – 2012 for inclusion in TNC</p>	<p>GHG inventory estimates compiled and reported for the period 2001 – 2011 including all AD quality controlled and default IPCC EFs replaced with Country-specific EFs for a selected number of key source categories</p>	<p>Year 2000 NIR published in 2009 and the updated 2001-2010 NIR published in 2013 and reported as part of the BUR in 2014</p>	<p>2.1.1 Collect and format activity data (AD for use in UNFCCC software for IPCC sectors (a) Energy (b) Industrial Production and Other Product Use (c) Agriculture, Forest and Land-Use Change (AFOLU), and (d) Waste</p> <p>2.1.2 Quality control and archive all AD.</p> <p>2.1.3 Identify data gaps and start processes for filling</p>	<p>The National Inventory Report and TNC chapter on GHG inventories</p>	<p>Data sets may be incomplete for some sectors and years</p>

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
			<p>these gaps (new surveys, etc.)</p> <p>2.1.4 Review all emission factors (EFs) for their appropriateness for South Africa before adoption.</p> <p>2.1.5 Modify All inappropriate EFs to suit national circumstances as far as possible</p> <p>2.1.6 Compile an inventory of emissions for the IPCC sectors listed in 2.1.1</p> <p>2.1.7 Document and archive all AD, EFs and compilations</p>		
<p>Outcome 2.2 Quality of inventory improved from Tier 1 to Tier 2</p>	<p>Tier 2 level methods adopted for compiling GHG estimates for selected key source categories; QA/QC and Archiving systems developed; KCA performed and full inventory process documented</p>	<p>Tier 1 level of the SNC adopted for previous GHG inventories</p>	<p>2.2.1 Harmonize computed emissions over the full time period with same methodology for a better trend analysis</p> <p>2.2.2 Document the methodologies for Tier II adopted wherever AD is of the detailed level of disaggregation in an inventory report.</p> <p>2.2.3 Document the amended improved emission factors that have been</p>	<p>Information contained in the NIR and TNC reports posted on the UNFCCC website</p>	<p>Activity data may not be at the level of disaggregation required for all source categories</p>

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
			<p>adopted</p> <p>2.2.4 Report on the QA/QC, Uncertainty analysis and Key Category Analysis performed as per Good Practice Guidance</p> <p>2.2.5 Identify further improvement areas and prepare a National Inventory Improvement Plan for action until the next inventory compilation</p>		
<p>Outcome 2.3 Institutional arrangements put in place and officially endorsed as well as institutional capacity enhanced to facilitate the preparation of GHG inventories on a regular basis.</p>	<p>The number of experts and the various institutions that have participated in the preparation of the GHG inventories have their capacity enhanced and a QA/QC system is operational</p>	<p>The number of institutions involved, their level of participation and QC as reported in the last NIR published in 2013</p>	<p>2.3.1 Develop and make operational a National Inventory Management System through the active participation of strengthened sectoral ministries and institutions which is supported by a network of research institutions</p> <p>2.3.2 Established and make functional QA/QC procedures under an established GHG inventory management system</p>	<p>Information on the National System documented in the NIR and TNC submitted to the UNFCCC</p>	<p>Some stakeholders may find it difficult to devote sufficient personnel and time for GHG inventory preparation on a regular basis</p>
<p>Project Component 3. Measures to adapt to climate change</p>					

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
Outcome 3.1 Better understanding of climate change, climate variability and the resulting sea level rise on a finer spatial resolution	Analysis of existing climate data has led to more detailed information being available to stakeholders on the status of climate change and climate variability at a finer spatial resolution	Information on climate change and climate variability contained in the SNC submitted in 2011	3.1.1 Perform a detailed analysis of historical climate data to detect changes at the provincial and community levels and determine current trends 3.1.2 Analyze sea level data and make the trend available at different locations around the country	Information contained in the TNC posted on the UNFCCC website	Data gaps in the meteorological records and insufficient coverage of some areas of the country
Outcome 3.2 Improved climate change and sea level rise scenarios for improved projections at the spatial and temporal and geographical scales and endorsed by government.	New climate change and sea level rise scenarios produced from the latest most appropriate models and used for making improved projections	Climate change and sea level rise scenarios and projections adopted in the SNC submitted in 2011	3.2.1 Test the latest GCMs and use the best for projecting scenarios for vulnerability and adaptation assessments. 3.2.2 Generate improved climate change and sea level rise scenarios at the local, national and regional levels for different time-steps up to the 2100 time horizon. 3.2.3 Project sea level rise for impact assessment on the coastal zone and other related activities	Climate change and sea level rise scenarios and projections documented in the TNC posted on the UNFCCC website	Insufficient capacity and baseline data to generate the scenarios and projections at fine spatial, temporal and geographical scales
Outcome 3.3 Socio-economic scenarios developed, approved by government and made available for use when	Socio-economic scenarios produced and adopted for planning implementation of the Convention	Socio-economic scenarios used during preparation of the SNC submitted in 2011	3.3.1 Develop socio-economic scenarios for use in the evaluation of adaptation measures 3.3.2 Make risk assessments and develop vulnerability indices for most probable	Information provided thereon in the TNC submitted to the UNFCCC	Data and information used may introduce may introduce high uncertainty in the socio-economic scenarios developed

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
implementing the Convention			climatic risks and extremes		
Outcome 3.4 Improved vulnerability and adaptation assessments of key socio-economic sectors	Previous vulnerability and adaptation assessments reviewed on the basis of more recent tools, data, methods and the socio-economic scenarios for the key socio-economic sectors	Vulnerability and adaptation assessments documented in the SNC submitted in 2011	3.4.1 Complete in-depth impact assessments of climate change on the Agriculture, Water Resources, Forest and other terrestrial Ecosystems, Coastal Zone and Health sectors 3.4.2 Undertake adaptation assessments including the socio-economic aspects for the sectors Agriculture, Water Resources, Forest and other Terrestrial Ecosystems, Coastal Zone and Health	Information documented in the TNC posted on the UNFCCC website	Disaggregated data may be lacking and methodologies not always appropriate for conducting the in-depth studies
Outcome 3.5 More informed decisions based on V&A assessment outputs to allow for mainstreaming of adaptation to climate change into development plans which are endorsed by government	Planned Integration of adaptation in development strategies for key sectors presenting the highest risks such as Agriculture, Water Resources, Forest and other Terrestrial Ecosystems, Coastal Zone and Health through improved vulnerability and adaptation assessments	Information published on the status of mainstreaming of adaptation to climate change in the SNC submitted in 2011	3.5.1 Develop an adaptation strategy based on the more reliable vulnerability and adaptation assessments including the prioritization of key activities within sectors 3.5.2 Produce spatial vulnerability profiles in GIS format at local and national levels based on vulnerability indices for different sectors and sub sectors	The approach for mainstreaming climate change adaptation measures in national/local government plans is documented in the TNC	Some key stakeholders may not prioritise climate change adaptation measures as an important component of their development plans
Outcome 3.6 More appropriate	A national adaptation plan with both short	Adaptation planning actions as	3.6.1 Prepare a robust national adaptation plan with	A national adaptation plan is	The process to manage various

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
planning for concrete actions to adapt to climate change impacts	term and long term strategies is developed to support the implementation of adaptation measures and build resilience to climate change impacts with emphasis on poor rural communities	documented in the SNC submitted in 2011	both short term and long term strategies for implementation and taking into special consideration the poorer rural population as well as the economic engines 3.6.2 Prepare a series of project briefs for further development for funding	developed and documented in the TNC.	interests in the development of the national adaptation plan may prove to be a challenge
Project Component 4. Measures to mitigate climate change					
Outcome 4.1 Socio-economic scenarios developed, endorsed by government and made available for use in mitigation assessments	Socio-economic scenarios incorporating latest and projected emissions data produced and adopted when assessing mitigation	Socio-economic scenarios used in the SNC submitted in 2011	4.1.1 Create new improved baselines for emitting sectors 4.1.2 Project emissions to the 2050 horizon for the business as usual and new socio-economic scenarios	Information provided thereon in the TNC submitted to the UNFCCC	Uncertainties in the international environment may impact on the socio-economic scenarios produced
Outcome 4.2 Improved up to date mitigation assessments completed for key emitting sectors and approved by government.	Mitigation assessments completed for the Energy, Industrial Processes and Other Product Use, AFOLU and Waste sectors, including financial needs for implementation	Assessments carried out within the framework of the SNC submitted in 2011 for relevant sectors	4.2.1 Complete mitigation assessments for the Energy, Industrial Processes and Other Product Use, AFOLU and Waste sectors, including financial needs for implementation	Information and methods used in the assessments is documented in the TNC.	Confidentiality of data may compromise transparency and access to data, It may be difficult to validate and verify projection assumptions from 2030 onwards
Outcome 4.3 Carbon sequestration	The sequestration potential of the country, with	Carbon sequestration and carbon capture and	4.3.1 Determine the sequestration potential of the country, with emphasis in	Information and methods on carbon sequestration and	Quality of information and data for accurate carbon

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
potential evaluated for the country and endorsed by government.	emphasis in the AFOLU sector and through Carbon Capture and Storage in the energy sector is determined	storage potentials as reported in the SNC submitted in 2011	the AFOLU sector and through Carbon Capture and Storage in the energy sector	carbon capture and storage potentials documented in the TNC.	sequestration and carbon capture and storage potentials may influence confidence levels.
Outcome 4.4 Mitigation measures mainstreamed in national and local development plans and strategies for the consideration of the government.	An approach for mainstreaming mitigation measures in national/sectoral and local development plans and strategies developed	Mainstreaming of mitigation as documented in the SNC submitted in 2011	4.4.1 Develop a strategy for implementing the most prominent mitigation actions in consultation with a wide group of stakeholders, including the private sector. Prepare a National mitigation plan for guiding the way forward	The approach for mainstreaming climate change mitigation in national/local government plans is documented in the TNC	Some key stakeholders may not prioritize climate change mitigation as an important component of their development plans
Outcome 4.5 Effective and coordinated strategy in place and approved by government for implementation of concrete GHG mitigation activities consistent with national development priorities	A series of GHG mitigation project briefs prepared and ready for further development into full project proposals for funding	GHG mitigation project briefs as outlined in the SNC report submitted in 2011	4.5.1 Prepare a series of GHG mitigation project briefs for further development into full project proposals for funding	An annexure with a list of climate change mitigation project briefs included in the TNC	No Risk
Project Component 5. Other information relevant to the Convention					
Outcome 5.1 Improved assessment of technology needs for implementing	The technology needs is updated based on the prioritized findings of the adaptation and mitigation assessments	The previous stand-alone TNA report made for the country	5.1.1 Prepare a Technology Needs Assessment consistent with national strategies and plans to	TNA section of the TNC submitted to the UNFCCC	Available data and methods may not be fully suitable to meet the national circumstances of the

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
the Convention and approved by government	made within the framework of the TNC		<p>implement the Convention;</p> <p>5.1.2 Perform an in-depth analysis and prioritization of technologies based on costs, adoption rates and other factors;</p> <p>5.1.3 Prepare a Technology Action Plan, the objective being successful technology transfer for both mitigation and adaptation.</p>		country
Outcome 5.2 Enhanced research and systematic observation systems, thus enabling the country to better meet its commitments	Research and systematic observation (RSO) needs identified and prioritized for implementation	Research and systematic observation as documented in the SNC submitted in 2011	<p>5.2.1 Identify and prioritize research and systematic observation needs for implementation;</p> <p>5.2.2 develop projects on climate research to improve assessment of impacts and adaptation;</p> <p>5.2.3 Identify research activities to develop country specific emission factors for improving quality of inventory;</p> <p>5.2.4 Document on the collaboration of South Africa in regional and international research and systematic observation networks for combating climate change.</p>	Information on research and systematic observation provided for in the TNC submitted to the UNFCCC	All improvements and needs may not be captured in light of uncertainties still existing on climate change science

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
<p>Outcome 5.3</p> <p>Better understanding of Education, Training and Public Awareness needs</p>	<p>Proposals for improving Education, Training and Awareness on climate change more clearly defined on the basis of surveys and assessments</p>	<p>Information reported in the SNC submitted in 2011 on Education, Training and Awareness</p>	<p>5.3.1 Prepare a detailed plan for the inclusion of climate change in formal educational curricula and vocational training;</p> <p>5.3.2 Assess the level of awareness of different segments of the population and identify remedial actions to inform and educate them, the objective being to influence their behavioral choices;</p> <p>5.3.3 Produce an action plan on the preparation of awareness materials for effective sensitization of the general public</p>	<p>The Education, Training and Awareness needs reported in the TNC submitted to the UNFCCC</p>	<p>Some stakeholders may not collaborate in the exercise due to lack of personnel and time</p>
<p>Outcome 5.4</p> <p>Capacity Building needs for reporting to the UNFCCC and implement the Convention clearly identified and endorsed by government</p>	<p>Needs assessment for capacity building for reporting to the UNFCCC and implementing the Convention completed</p>	<p>Capacity Building needs for reporting to the UNFCCC and implement the Convention as identified in the SNC submitted in 2011</p>	<p>5.4.1 Identify and make an exhaustive list of areas requiring capacity;</p> <p>5.4.2 Prepare a plan of action for implementation including prioritization of capacity building in line with most urgent needs.</p>	<p>Capacity building needs as reported in the TNC posted on the UNFCCC website</p>	<p>Needs for implementing the Convention may be difficult to identify given the uncertainties linked with the international context</p>
<p>Project Component 6. Biennial Update Report to the UNFCCC</p>					

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
<p>Outcome 6.1 Write-up on the National Circumstances of South Africa with respect to climate change issues reviewed, updated and officially approved</p>	<p>The latest information on the socio-economic and environmental situation with regard to climate change; collated and documented</p>	<p>National circumstances chapter of SNC submitted in 2011</p>	<p>6.1.1 Prepare a report on the national and regional priorities to address climate change concerns within the framework of national development programmes, plans and strategies 6.1.2 Describe and document information on the geography, climate, environmental and socio-economic profiles of the country with emphasis on sensitivity to climate change and climate variability 6.1.3 Describe thoroughly the institutional arrangements put in place for producing the Biennial Update Report regularly 6.1.4 Conduct an inception workshop on the Biennial Update Report with relevant stakeholders 6.1.5 Report the level of support received for preparing the BUR</p>	<p>Information provided on the various sections of the national circumstances chapter of the BUR submitted to the UNFCCC</p>	<p>Information needed to describe national circumstances may not be available on time</p>

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
<p>Outcome 6.2a Information on national GHG inventory and trends provided for the period: 2001 - 2010 for inclusion in the BUR1</p>	<p>GHG inventory estimates compiled and reported for the period 2001 – 2011; All AD quality controlled; default IPCC EFs replaced with Country-specific EFs for a selected number of key source categories</p>	<p>Year 2000 NIR published in 2009</p>	<p>6.2a.1 Collect and format activity data (AD) for use in UNFCCC software for IPCC sectors (a) Energy (b) Industrial Production and Other Product Use (c) Agriculture, Forest and Land-Use Change (AFOLU), and (d) Waste 6.2a.2 Quality control and archive all AD 6.2a.3 Identify data gaps fill these gaps wherever possible (new surveys, etc.). 6.2a.4 Review all emission factors (EFs) for their appropriateness for South Africa before adoption. 6.2a.5 Modify all inappropriate EFs to suit national circumstances as far as possible 6.2a.6 Compile an inventory of emissions for the IPCC sectors listed in 6.2.1 6.2a.7 Document and archive all AD, EFs and compilations</p>	<p>The BUR submitted to the UNFCCC</p>	<p>Data sets may be incomplete for some sectors and years</p>

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
Outcome 6.2b Quality of inventory improved from Tier 1 to Tier 2	Tier 2 level methods adopted for compiling GHG estimates for selected key source categories; QA/QC and Archiving systems developed; KCA performed and full inventory process documented	Tier 1 level of the SNC submitted in 2011	6.2b.1 Computation of emissions over the full time period harmonized with same methodology for a better trend analysis 6.2b.2 Methodologies for Tier II adopted wherever AD is of the detailed level of disaggregation and documented in an inventory report. 6.2b.3 Amended improved emission factors have been adopted and documented 6.2b.4 QA/QC, Uncertainty analysis and Key Category Analysis performed as per Good Practice Guidance and reported 6.2b.5 Further improvement areas identified and a National Inventory Improvement Plan prepared for action until the next inventory compilation	The BUR submitted to the UNFCCC	Activity data may not be at the level of disaggregation required for all source categories
Outcome 6.2c Institutional arrangements put in place and officially endorsed as well as institutional capacity enhanced to facilitate the preparation of GHG inventories on a regular basis.	A number of experts from various institutions have participated in the different steps of the compilation of the inventory, including performing the QC	The number of experts, institutions involved and their level of participation and QC as reported in the last NIR published in 2009	6.2c.1 Establish and make operational a National Inventory Management System, through the active participation of sectoral ministries and institutions 6.2c.2 Establish and make operational QA/QC procedures	Information on the arrangements reported in the BUR submitted to the UNFCCC	Some stakeholders may find it difficult to devote sufficient personnel and time for GHG inventory preparation on a regular basis
Outcome 6.2d	Projections of	Projections reported	6.2d.1 Make projection of	Projected emissions	Projections may be

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
GHG emission projections are generated for 2020 to 2050 and endorsed by Government	emissions for period 2020 to 2050 are made	in the SNC submitted in 2011	emissions for the period 2020 to 2050	reported in the BUR submitted to the UNFCCC	weak due to difficulties in forecasting socio-economic situations
Outcome 6.3 Mitigation actions and their impacts, including associated methodologies, assumptions and implementation status are described in accordance with reporting guidelines and approved by government in line with the low carbon development strategy.	List of mitigation actions implemented along with their results recorded in an official register	Mitigation actions reported in the SNC submitted in 2011	6.3.1 Prepare a report on the status of the national arrangements made for the implementation of NAMAs including the establishment of a national registry 6.3.2 Prepare and institutionalize a template for reporting mitigation actions 6.3.3 Prepare a report on the status of implementation of mitigation actions and results obtained with results compiled in a tabular format 6.3.4 Prepare a status report on participation in international carbon market mechanisms 6.3.5 Establish a database on all mitigation actions (policies, measures) containing (a) a description of on-going and planned mitigation actions, including information on the nature of the action, coverage (i.e. sectors and gases) ; (b) methodologies and assumptions, (c) objectives of actions and steps taken or	Information on mitigation documented in the BUR	Some stakeholders may not release the appropriate information in time and of the required quality

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
			envisaged to achieve that action 6.3.6 Forecast/project emissions for business as usual and different socio-economic scenarios for the period 2020 to 2050		
Outcome 6.4 Framework for the continuous assessment and reporting of constraints, gaps and related financial, technical and capacity needs and support needed and received is established and endorsed by government	Framework for the continuous assessment and reporting of constraints, gaps and related financial, technical and capacity needs and support needed and received is established and operational	None	6.4.1 make an assessment of financial, technology and capacity building needs for mitigation actions 6.4.2 Collect, analyze and update formation on financial resources, technology transfer, capacity building and technical assistance received from the GEF, Annex II Parties and other developed country Parties, the GCF and multilateral institutions for GHG mitigation activities. 6.4.3 Prepare a report bringing all these elements outlined in 6.4.1 and 6.4.2 above together and helping to match funding opportunities with needs	Information on this framework documented in the BUR submitted to the UNFCCC	No risk as government has already established a monitoring, evaluation and reporting unit in the Ministry of Environment to do this
Outcome 6.5 Domestic MRV arrangements for mitigation actions and its impacts are defined, established and endorsed by government	MRV system developed and operational and at least the one MRV conducted and documented	None	6.5.1 Develop and make operational a domestic MRV system in accordance with international guidelines 6.5.2 Prepare user operational protocols for the MRV system 6.5.3 Conduct an MRV assessment	Results of MRV system and assessment documented in the BUR submitted to the UNFCCC	Staff may have limited capacity for operating a fully-fledged MRV system

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
Outcome 6.6 Information on non-climate related impacts, opportunities and benefits on sustainable development objectives are provided and accepted by government	Information on how “supports received” are helping to unlock sustainable development opportunities to reduce emissions developed	None	6.6.1 Conduct assessment of non-climate related development impacts of selected mitigation actions	Information provided in the BUR on non-climate related impacts, opportunities and benefits on sustainable development objectives	Some stakeholders may not release the appropriate information in time for inclusion in the BUR
Outcome 6.7 Project is effectively monitored and implemented	BUR Project Monitoring and Evaluation (M & E) and financial audit	None	Perform internal and external M & E and audits	Report on M & E sessions	Limited risks of delay in case of staff shortage and other commitments
Outcome 6.8 Officially approved BUR is submitted to UNFCCC	BUR prepared and submitted to the UNFCCC	None	6.8.1 South Africa’s first BUR prepared, reviewed, published and submitted to UNFCCC in line with reporting guidelines	BUR submitted to UNFCCC	Limited risk of delay if funds are not available in time
Project Component 7. Other activities					
Outcome 7.1 GHG inventory report prepared and approved by government	The GHG inventory report is prepared in electronic and hard copies for wide circulation	National Inventory Report (NIR) prepared within the framework of the SNC submitted in 2011	7.1.1 Produce the GHG inventory report in electronic and hard copies for wide circulation	NIR published and posted on the UNFCCC website	No risk
Outcome 7.2 TNC report prepared and approved by government	The GHG inventory and TNC are summarized for targeted audiences	Summary made for the SNC submitted in 2011	7.2.1 Prepare the TNC report in electronic and hard copies for wide circulation	TNC summary uploaded in the National Climate Change Response Database (NCCRD)	No Risk

	Objectively verifiable indicators			Source of verification	Risks/Assumptions
	Key Performance Indicator	Baseline	Targets End of Project		
Outcome 7.3 Synthesis and translation of GHG Inventory Report and TNC	TNC report is completed	The SNC submitted in 2011	7.3.1 Summarize the GHG inventory and TNC in formats digestible by all segments of the population for buying in their contribution; 7.3.2 Prepare awareness creation materials on GHG inventories and TNC and translate these into national languages for sensitization /outreach activities.	TNC submitted to the UNFCCC	No risk

Schedule of Outputs for TNC inclusive of BUR

OUTPUTS		2014		2015				2016				2017	
		July - Dec		Jan -Dec				Jan - Dec				Jan-Jun	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1.	<p>National Circumstances</p> <p>1.1.1 Detailed report of national and regional priorities to address climate change concerns within the National Development programmes, plans and strategies</p> <p>1.1.2 Indepth description of the geography, climate, environmental and socio-economic profiles with emphasis on sensitivity to climate change and variability</p> <p>1.1.3 Thorough description of the institutional arrangements to be adopted for producing the third national communications</p> <p>1.1.4 Detailed description of the proposed institutional arrangements set up for compiling GHG inventories and the production of the Biennial Update Report</p> <p>1.1.5 Description of the organisational structure and framework to sustainably implement measures to meet the objectives of the Convention</p> <p>1.1.6 Organization of an induction workshop to present and launch the implementation of the third national communication</p> <p>1.1.7 Organization of an induction workshop to introduce, explain and launch the preparation of the Biennial Update Report</p> <p>1.1.8 Preparation of TNC Chapter</p>												
2.	<p>National Greenhouse Gas Inventories</p> <p>2.1.1 Activity data (AD) collected, quality controlled and formatted for use in UNFCCC software for IPCC sectors (a) Energy (b) Industrial Production and Product Use (c) Agriculture, Forestry and Other Land-Use Change, and (d) Waste. All AD are quality controlled and archived.</p> <p>2.1.4 All emission factors (EFs) are reviewed for their appropriateness and inappropriate EFs are</p>												

	<p>modified to suit national circumstances as far as possible, adopted and documented</p> <p>2.1.6 Inventory of emissions compiled for the IPCC sectors listed in 2.1.1 and harmonized over the full inventory period.</p> <p>2.1.7 All AD, EFs and compilations documented and archived</p> <p>2.2.1 QA/QC, Uncertainty analysis and Key Category Analysis performed as per Good Practice Guidance and reported</p> <p>2.2.2 Further improvement areas identified and a National Inventory Improvement Plan prepared for action until the next inventory compilation</p> <p>2.3.1 A National Inventory Management System , through the participation of sectoral ministries and institutions and supported by a network of research institutions, established</p>											
3.	<p>Programme to facilitate Adaptation Measures</p> <p>3.1.1 Detailed analysis of historical climate data to detect changes at the provincial and community levels and determine current trends, and sea level data are analyzed and the trend available at different locations around the country</p> <p>3.2.1 The latest GCMs and RCMs are tested and the best used for projecting climate change and sea level rise scenarios for different timesteps up to the 2100 time horizon for vulnerability and adaptation assessments.</p> <p>3.3.1 Socio-economic scenarios developed for use in the evaluation of adaptation measures</p> <p>3.3.2 Risk assessments made and vulnerability indices developed for most probable climatic risks and extremes</p> <p>3.4.1 Indepth impact and adaptation assessments including the socio-economic aspects of climate change on the Agriculture, Water Resources, Forest and other terrestrial Ecosystems, Coastal Zone and Health sectors are completed</p>											

	<p>3.5.1 The more reliable vulnerability and adaptation assessments enable the development of an adaptation strategy based on prioritization of key activities within sectors assessed</p> <p>3.6.1 A robust national adaptation plan with both short term and long term strategies is ready for implementation and taking into special consideration the poorer rural population as well as the economic engines</p> <p>3.6.2 A series of project briefs prepared and ready for development for funding</p> <p>3.6.3 Preparation of TNC Chapter</p>												
4.	<p>Programme to facilitate Mitigation measures</p> <p>4.1.1 New improved baselines created and emissions projected to the 2050 horizon for the business as usual and new socio-economic scenarios</p> <p>4.2.1 Mitigation assessments completed for the Energy, Industrial Processes and Other Product Use, AFOLU and Waste sectors, including financial needs for implementation</p> <p>4.3.1 The sequestration potential of the country, with emphasis in the AFOLU sector and through Carbon Capture and Storage in the energy sector is determined</p> <p>4.4.1 A strategy for implementing the most prominent mitigation actions worked out in consultation with a wide group of stakeholders, including the private sector. A National mitigation plan is produced for guiding the way forward.</p> <p>4.5.1 A series of project briefs prepared and ready for development for funding</p> <p>4.6.1 Preparation of TNC Chapter</p>												
5.	<p>Other Relevant Information</p> <p>5.1.1 Technology Needs Assessment consistent with national strategies and plans to implement the Convention</p> <p>5.1.2 Indepth analysis and prioritisation of technologies based on costs, adoption rates and other</p>												

	<p>factors and preparation of a Technology Action Plan for successful technology transfer for both mitigation and adaptation</p> <p>5.2.1 Research and systematic observation needs identified and prioritized for implementation</p> <p>5.2.2 Projects on climate research to improve assessment of impacts and adaptation</p> <p>5.2.3 Research to develop country specific emission factors for improving quality of inventory</p> <p>5.3.1 Detailed plan for inclusion of climate change in formal educational curricula and vocational training prepared</p> <p>5.3.2 Level of awareness of different segments of the population evaluated and remedial actions identified and an action plan to prepare awareness creation materials for effective sensitization of the general public</p> <p>5.4.1 An exhaustive list of areas requiring capacity building is produced</p> <p>5.4.2 A plan of action is prepared for implementation and prioritizing capacity building in line with most urgent needs</p> <p>5.5.1 Preparation of TNC chapter</p>											
6.	<p>Biennial Update Report</p> <p>6.1.1 Biennial Update Report to the UNFCCC preparation</p>											
7.	<p>Other activities:</p> <p>7.1.1 Preparation of GHG inventory report in electronic and hard copies</p> <p>7.2.1 Preparation of TNC report in electronic and hard copies</p> <p>7.3.1 Awareness creation materials covering GHG inventories and TNC prepared and translated to national languages</p>											
8.	<p>Implementation of Technical Assistance programme</p>											

9.	Monitoring and Reporting																			
10.	Evaluation																			
11.	Project Management																			

Schedule of Outputs for BUR

OUTPUTS		2014		2015	
		Jul-Dec		Jan - June	
		Q ₃	Q ₄	Q ₁	Q ₂
1.	Description of National Circumstances with emphasis on socio-economic sectors concerned with emissions and sinks of GHG and mitigation potential				
2.	National Greenhouse Gas Inventory 3.1 Collection of AD, QC, formatting for IPCC 2006 Guidelines for IPCC sectors (a) Energy (b) Industrial Production and Other Product Use (c) Agriculture, Forest and Land-Use Change, and (d) Waste for year 2011-2012. 3.2 Compilation of the inventory along with uncertainty analysis, key category analysis, QA and documentation with archiving of all outputs in the end.				
3.	Collect and prepare information on mitigation actions including assessment of reduction in emissions and increase in sink capacity				
4.	Identification of constraints and gaps, and related financial, technical and capacity needs for implementing mitigation measures				
5.	Provision of information on the level of support received to enable the preparation and submission of BUR				
6.	Description of domestic measurement, reporting and verification system in place for tracking mitigation				
7.	Preparation of Biennial Update Report				
8.	Monitoring and Reporting				
9.	Evaluation				
10.	Project Management				

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Responses to the questions posed by the GEF Secretariat are provided below:

Commenter	Comment	Country response
GEF-Sec	<p>There is a need for some further work on some issues in the project.</p> <p>In component II, National GHG Inventory it is noted that the GHG Emissions will be compiled and made available for the period 2000, to the latest year as far as possible on the basis of data availability. In the project matrix, the expected outcome is stated as Information of GHG Inventory and trends provided for the period 2000 to 2012. Clarification is therefore requested on the actual years for which GHG inventories will be completed, and whether inventories for the years 2010-2012 will be completed.</p> <p>The project will establish a national inventory management system. Clarification is requested on outcome 2.3, as to whether this component will involve the actual enhancement of institutional capacity to facilitate the establishment of the national inventory management system.</p>	<p>The endorsement document has been updated to respond to this question in Section B (Project Framework), outcome 2.1. In fact, the inventory will be compiled annually for the years 2011 and 2012 for the TNC. The annual inventory for the years 2001 to 2011 will be reported in the BUR along with that of the year 2000 which will be recalculated for consistency when the trend will be derived.</p> <p>This is addressed in Section B.1 of the document. South Africa has in place a number of Directorates within its Department of Environmental Affairs on a permanent basis to oversee the different thematic areas of the National Communication. With regard to GHG inventories, the institutional arrangements existing presently will be further enhanced and consolidated to develop a GHG inventory management system within the Monitoring and Evaluation Directorate of the Department of Environmental Affairs to oversee the regular production of inventories. Institutional capacity building which started within the framework of preparation of previous inventories for the INC and SNC, and the last National Inventory Report will be further enhanced with the compilation of GHG inventories for the TNC and BUR.</p>
GEF-Sec	<p>Yes information is provided on the socio-economic benefits, including gender dimensions, to be delivered by the project. Further information should be provided by CEO Endorsement.</p>	<p>This is addressed in Section B.2 of the document. South Africa is a country endowed with natural resources that are directly or indirectly responsible for the livelihood of the population and its socio-economic development. The adverse effects of climate change have been clearly demonstrated in both the INC and SNC with increasing negative impacts on water resources, agriculture, forestry, ecosystems, biodiversity, the coastal zone, health and livelihoods as well as various economic engines. The TNC will contribute precisely to improve in the identification of the most appropriate mitigation and adaptation measures, based on better more disaggregated studies and information covering</p>

		<p>the national and local scales. Dissemination of information stemming from the TNC work, especially those on impacts and adaptation, will also be improved to further raise awareness and buy in more stakeholders, including women for better implementing actions at the local level that will help to build resilience. In the course of the coming years, the economic, social and environmental resilience, or capacity of recovery, to climate change impacts will depend on the initiatives that the society and public policies and programs will implement towards restoring and maintaining the integrity of economic and ecological systems. South Africa will reorient its development towards sustainability with special emphasis on a low carbon economy as stated in the NCCRP. It is also the intent of Government to work towards increasing the adaptive capacity of its citizens, including women. The TNC will be a valuable tool of updated and detailed information for decision makers and stakeholders to this end. It is also planned to avail this information to the wide public, including women, through translations of summaries of both the inventory and TNC reports. Women and children will be better placed to limit risks from climate change, plan and implement their activities to optimize socio-economic benefits. South Africa is a democratic country practicing gender equality and it will maintain this direction. The rural population with a subsistent way of life and where females usually head households will receive particular attention in the TNC due to their relatively higher vulnerability compared to urban population. The approach of further mainstreaming climate change within the development plans and strategies will consolidate socio-economic benefits dependent on climate change. The TNC will concurrently enable GoSA to meet its reporting obligation to the Convention on the latest status on implementation.</p>
GEF-Sec	<p>Information on public participation, including CSOs and indigenous people, has been provided. Further information should be provided by CEO Endorsement.</p>	<p>This is addressed in Section B.1 of the document. The key stakeholders of the project will consist of the line ministries and government departments having relevance with climate change mitigation and adaptation at the state, provincial and district levels, the scientific community from research institutions, universities, and science and technology institutes, and the South African Weather Service. In addition local level decision making bodies and other policymakers as appropriate will be involved in the process. Participation will also be sought from other stakeholders such as the private sector, civil society groups and community based organizations including indigenous communities. The public sector will be involved at the different steps of the NC and BUR process. NGOs, CSOs, CBOs and indigenous people will act as partners for Informal education and Public awareness as well as providing the necessary support for developing community based adaptation.</p>

		Stakeholder	Role
		Department of Environmental Affairs	Implementing and Executing Agency for the management and administration of the TNC project
		South African Weather Service	Production of long term climate trends and generation of climate change and Sea Level Rise scenarios for impact assessments
		Department of Energy and ESKOM	Collaborator for inventory and mitigation in the energy sector
		Department of Agriculture, Forest and Fisheries	Collaborator for inventory, adaptation and mitigation in the Agriculture, Forest and Fisheries sectors as appropriate
		Department of Mineral Resources	Collaborator for inventory and mitigation
		Department of National Treasury	Collaborator in related fiscal policies and measures
		Agricultural Research Council	Support impact assessments and derivation of emission factors Support mitigation analysis and derivation of emission factors
		Council for Scientific and Industrial Research (CSIR), and the Human Sciences Research Council (HSRC), South African National Energy Development Institute (SANEDI), Department of Science and Technology, Research institutions, South African National Biodiversity Institute (SANBI); Sustainability Institute (SI); Energy Research Centre (ERC)	Conduct studies in relation to impact assessments, evaluate adaptation and/or mitigation measures and collaborate in deriving nationally appropriate emission factors for improving inventory; RSO for meeting climate change challenges; Inclusion of climate change in tertiary and distance education programs;

		Department of Transport (Road, Rail, Air, Marine)	Collaborator for inventory and mitigation in the transport sector
		Economic Development Department	Support the impact assessment and studies on adaptation, mitigation and green economy
		Department of Environmental Affairs	Inventory on waste, impact assessment and adaptation/mitigation and awareness raising
		Department of Cooperative Governance and Traditional Affairs and South African Local Government Association	Support the impact assessment and studies on adaptation
		Water Affairs	Support the impact assessment and studies on adaptation
		NGOs, CSOs, CBOs	Informal education and Public awareness mainstreaming into development plans and strategies, TNA and technology transfer,
GEF-Sec	<p>At CEO endorsement please provide further information on the improved technology needs assessment and technology action plan, in particular:</p> <p>(i) Please clarify the methodology to be used for updating the technology needs assessment.</p> <p>(ii) Please also clarify which sectors will be targeted for this technology needs assessment.</p> <p>(iii) Please clarify how the project</p>	<p>This is addressed in Section A.4, Component V on Other information relevant to the Convention, - <i>the methodology to be used will be that of the updated UNDP/GEF/UNFCCC handbook Conducting Technology Needs Assessments for Climate Change.</i></p> <p>Also addressed in Section A.4, Component V on Other information relevant to the Convention, - <i>the sectors targeted will be those offering the highest mitigation potential (energy industries, transport and AFOLU) based on the latest GHG inventory results and the sectors most vulnerable to climate change (Agriculture, Forest, health, water resources and infrastructure).</i></p> <p>Also addressed in Section A.4, Component V on Other information relevant to the Convention, - <i>during the process of updating the first TNA of South Africa within the framework of this project, experts undertaking the assessment will regularly liaise with the Pilot African Technology Finance Centre to help mobilize financing for clean technology by incorporating technology considerations into national investment plans and strategies, and by piloting innovative financing mechanisms. National experts will tap into the Network to obtain complementary technical support and policy advice, as well as share knowledge and experiences. In this way the project will avoid duplications</i></p>	

	will coordinate, and exploit potential synergies with Pilot African Climate Technology Finance Center and Network (AfDB-GEF 4904)	<i>and enhance the quality and level of the assessment. Concurrently, findings of the TNA of South Africa will be available to the pilot project and in so doing, exploit fully the obvious synergies between the two GEF funded projects.</i>
STAP	STAP assumes that there are already government officials in place with considerable experience from submitting previous reports and national communications. The aim of the GEF funding is to "strengthen institutional, technical and analytical capacities". The PIF is silent on the question of how exactly this will be achieved? What capacities will be needed? How far can the current list of 13 data gaps identified (section B1) be realistically filled in the short period available?	<p>This has been addressed in Section A.4 of the document. <i>A National Inventory Unit has been developed to prepare national greenhouse gas inventories annually. In addition, a project steering committee in anticipation of the TNC activities has been set-up and will meet quarterly to reflect on the progress made and provide guidance with respect to BUR, TNC and GHG Inventory activities. Furthermore, the department has collaborated with the South African Weather Service (SAWS) to develop web-based emissions reporting system called the South African Air Quality Information System (SAAQIS). This system will facilitate reporting of emissions data from key emitters. Similarly, the department has developed the National Climate Change Response Database (NCCRD) wherein all government and most of private mitigation and adaptation actions are reported and stored. To ensure that all these systems are managed effectively, the department has created a Climate Change Monitoring and Evaluation (M&E) unit which also house the National Inventory Unit (NIU). The M&E unit is responsible for coordination and compilation of activities associated with GHG Inventories, National Communications and Biennial Update Reports. During the implementation of the TNC, the M&E unit shall be extended and a proper institutional arrangement network defined. This forms part of the TNC project scope.</i></p> <p><i>The National Inventory Unit (NIU) will work closely with key emitting sectors to develop country-specific/higher tier methods. The sectors that have been already contacted and agreed includes cement production, Ferroalloy production, Coal Mining, Iron and Steel production, Power Generation, Petroleum Refining and Synthetic fuel production. Working closely with the power generation sector, the NIU is preparing a study to develop country-specific emission factors for stationary combustion with emphasis on solid and liquid fuels. A study is also planned for the transport sector for liquid fuels with emphasis on CO₂, N₂O and CH₄.</i></p>
STAP	Around 20% of the total funding is sought for gaining a better understanding of adaptation and facilitating strategy formulation. What specific actions are proposed to achieve this aim?	<p>This has been addressed in Section A.4 of the document. <i>The department (DEA) has developed a project termed the Long-Term Adaptation Scenarios (LTAS) with a 50-year time horizon. The first step of the LTAS is to improve on the local –scale projections of global and regional models working closely with the South African Weather Service (SAWS) and the Climate Systems Analysis Group (CSAG). With regards to the impact analysis approach, the LTAS follows the sectoral analysis approach building on the impact assessment work that has been done after SNC. The 50-year time horizon of the LTAS enables South Africa to assess and plan for long-</i></p>

		<p><i>term impacts of climate change. In this way, South Africa will be in a position to develop climate-resilient society. The work on LTAS will be driven by the TNC process and will form the foundation of the work on climate change adaptation and impacts. The ultimate objective of the LTAS is to inform the policy making process with a view of developing adaptation policies and measures that have a mid-to-long-term perspective. The LTAS process is built on stakeholder engagement and participation. This is premised on the fact that the LTAS process has a science-policy interface that ensures that policies developed are based on solid science and that broad stakeholders are involved in that interface. In addition to the LTAS, DEA has developed a toolkit called “Let’s Respond” which is designed to guide all spheres of government in a decentralized way and other stakeholders on our to respond to local impacts of climate change in a manner that encourages mainstreaming of climate change in government planning. The TNC process will be used for further roll-out of the “Let’s Respond” toolkit.</i></p>
STAP	<p>It is not clear why transport data are not proposed to be collected as outlined in 2.1.1? Dept. of Transport is included as a stakeholder but no mention of transport activity data is made in the proposal. Maybe transport is included within the energy sector, but it has somewhat different challenges compared with the electricity and heating/cooling sectors when it comes to gathering data and supporting low carbon transport. STAP considers collection of these data important and would encourage project proponents to allocate adequate resources for this purpose.</p>	<p>This addressed in Section A.4, Component II on National GHG Inventory, which states that “<i>transport related emissions data is receiving a special focus due to the complexity of this sector and its relevance to other environmental areas such as air pollution and environmental degradation. The Department of Environmental Affairs (DEA) together with Department of Transport (DOT) has set-up a working-group to improve activity data for the transport sector. The working-group will oversee the implementation of a project aimed at data collection for a tier 3 modeling approach for transport emissions. In addition, the DEA is working very closely with the South African Petroleum Industry Association (SAPIA) to determine fuels shares for all demand-side sectors that uses liquid fuels. Parallel to these two processes, DEA has will initiate a study in 2014 to develop emission factors for the road transportation sector. In terms of fuel consumption for civil aviation and domestic navigation and its bunker fuels, the Department is working closely with Airports Company South Africa (ACSA) for Civil Aviation and Transnet for marine navigation and railway sector to develop inventory-ready data so that emissions estimates for this sector can be improved</i>”.</p>

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS⁵

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: NA			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Total	0	0	0

⁵ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

NA

ANNEX E: CONSULTANTS TO BE HIRED FOR THE ENABLING ACTIVITY

Positions for EA Management and Technical Assistance	<i>\$/ Person Week</i>	<i>Estimated Person Weeks</i>	<i>Tasks to be Performed</i>
Local			
<i>Project Coordinator</i>	250	104	<ul style="list-style-type: none"> ▪ Supervises and ensures timely and expeditious implementation of project activities as per approved work plan; ▪ Prepares a detailed work plan for the project and draft terms of reference for the subcontracts (in consultation with the PSC and UNEP); ▪ Compiles the scopes and content of the overall BUR report and relevant sections in consultation with Working Group Leaders; ▪ Develops the scope of the work and TORs and other procurement documentation required to identify and facilitate recruitment of experts and consultants; ▪ Identifies and hire/subcontract the national experts and institutions (in consultation with the PSC and UNEP); ▪ Supervise project support staff and national consultants recruited to provide technical assistance; ▪ Organizes and supervises the workshops and training programmes as appropriate. ▪ Liaises with the relevant ministries, national and international research institutes, NGOs, and other relevant stakeholders in order to ensure the active involvement of staff and personnel in project activities, and to gather and disseminate relevant information; ▪ Prepares periodic financial and technical progress reports; ▪ Control the expenditures and otherwise ensure adequate management of the resources provided to support the project; ▪ Summarizes and synthesizes the results of the project; ▪ Facilitates and supervises the use of up-to-date methodologies and approaches described within this document; ▪ Ensures that approaches used for compiling, archiving, updating, and managing the assessments under the BUR are consistent with the project document;
			<ul style="list-style-type: none"> ▪ Identifies and ensures synergy of BUR activities with other relevant on-going/new projects.

Positions for EA Management and Technical Assistance	<i>\$/ Person Week</i>	<i>Estimated Person Weeks</i>	<i>Tasks to be Performed</i>
			<ul style="list-style-type: none"> ▪ Initiates and mobilizes resources for the implementation of BUR follow-up activities focused on sustaining the capacity development across relevant climate change areas; ▪ Summarize the results of the project and finalizes the BUR of the Republic of South Africa along with the government personnel and national experts; ▪ Ensures that the BUR process is in the line with guidance provided by the COP of the UNFCCC and contributes to the improvement of the UNFCCC reporting process; ▪ Collaborates with all relevant stakeholders and the Project Steering Committee and other partners to ensure their involvement in the BUR process.
<i>Climate Change Policy Expert (National Circumstances)</i>	500	12	<ul style="list-style-type: none"> ▪ Collection and analysis of information related to national circumstances ▪ Analysis of South Africa’s specific needs and concerns arising from the adverse effects of climate change in the context of national development objectives, priorities and circumstances. ▪ Collection of information and description of institutional arrangements relevant to the preparation of the national communications and biennial update reports on a continuous basis, and description of level of support received to enable the preparation of the first BUR.
<i>National GHG Inventory Experts</i>	500	200	<ul style="list-style-type: none"> ▪ Collect and analyse activity data for 2011—12 and others gaps as per Revised 1996 IPCC Guidelines, GPG (2000) and GPG for LULUCF (2003). ▪ Coordinate activities with key partners for specific sectors (Agriculture, LULUCF, Energy, waste) ▪ Coordinate the necessary activities for the update of National Emission Factors for key source categories updated (Methane from enteric fermentation and Nitrous Oxide from agricultural soils with grazing animals). ▪ Prepare Worksheets, summary tables, uncertainty management for 2011-12 GHG national inventories. ▪ Prepare the inventory report containing the description of the contribution of different sectors to GHG emissions, procedures and arrangements for collection and activation of data and role of institutions involved in the preparation of the GHG inventory. ▪ Prepare updated summary information tables of previous inventories. ▪ Provide an overall technical review of the draft chapter on inventories to be

Positions for EA Management and Technical Assistance	<i>\$/ Person Week</i>	<i>Estimated Person Weeks</i>	<i>Tasks to be Performed</i>
			<p>used in the BUR.</p> <ul style="list-style-type: none"> ▪ Together with other project staff, identify specific training needs for government and non-governmental agencies and provide recommendations for training and capacity development. ▪ Collaborate with the GHG Inventory and database expert in supporting the process of establishment of the National Inventory Management System
<i>GHG inventory management and database expert</i>	500	30	<ul style="list-style-type: none"> ▪ Collaborate with the GHG Inventory experts in establishing and supporting the National Inventory Management System. ▪ Upload relevant information into national GHG inventory database. ▪ Collaborate in the training of individual experts and institutions to ensure sustainability of the National Inventory System
<i>Climate Change Mitigation experts</i>	500	100	<ul style="list-style-type: none"> ▪ Collection and analysis of relevant information regarding the GHG mitigation actions or groups of actions being developed in South Africa. ▪ Prepare a report on the mitigation actions to provide a description in tabular format that includes name, nature of the action, coverage, quantitative goals, progress indicators, associated methodologies and assumptions, objectives, steps taken or envisaged to achieve the action, progress of implementation and results achieved. ▪ Collection of data on participation in international carbon market mechanisms and preparation of a report containing the collected information ▪ Prepare a report containing a description on the national arrangements to enable the implementation of NAMAs including the establishment of the National Registry. ▪ Provide technical support for the establishment of the National Registry of NAMAs and the process of defining appropriate national arrangements needed to support the NAMA process. ▪ Provide technical support for training and awareness raising activities relevant to national economic sectors with mitigation potential for designation as NAMAs within the framework of the UNFCCC. ▪ Provide technical support to the process of identification of NAMAs development potential in the different socio-economic sectors, at various administrative levels and also identify the different types of financing and co-financing framework needed.

Positions for EA Management and Technical Assistance	<i>\$/ Person Week</i>	<i>Estimated Person Weeks</i>	<i>Tasks to be Performed</i>
<i>Climate change policy expert</i>	500	12	<ul style="list-style-type: none"> ▪ Conduct a study of financial, technological and capacity needs and constraints of institutions responsible for activities related to climate change through the collection, synthesis and analysis of existing information, individual interviews or group discussions, site visits, among others.
<i>Climate Change Mitigation expert (MRV)</i>	500	100	<ul style="list-style-type: none"> ▪ Conduct a study for the identification and assessment of the different options and possibilities for a domestic MRV system in accordance with guidelines to be developed by the UNFCCC, taking into consideration national circumstances and capabilities, as well as the nature of different GHG mitigation actions. ▪ Assist the process of developing national institutional arrangements and framework for domestic MRV. ▪ Prepare a report describing the progress of implementation of such institutional arrangements and framework.
<i>Editorial consultant</i>	500	20	<ul style="list-style-type: none"> ▪ Compile, consolidate, harmonize information from different consultants and experts, and elaborate the BUR report in accordance with the guidelines annexed to Decision 2/CP.17
<i>International</i>			
<i>International Climate Change Policy Expert</i>	1500	8	<ul style="list-style-type: none"> ▪ Provide recommendation and guide the execution of BUR activities related to NAMAs and MRV, including the NAMA registry, and the institutional arrangements for MRV and NAMAs. ▪ Revision of the mitigation analysis, including the baseline and mitigation scenarios until 2050 for abatement of GHG emissions.

ANNEX F-1: DETAILED BUDGET IN UNEP FORMAT

South Africa: Preparation for the Third National Communication and First Biennial Update Report under United Nations Framework Convention on Climate Change						
GFL/5070-pppp-nnnn						
Budget line	Activities	2014 (US\$)	2015 (US\$)	2016 (US\$)	2017 (US\$)	TOTAL (US\$)
10	PROJECT PERSONEL COMPONENT					
1100	Project Personnel					
1101	National Project Coordinator	16,900	33,800	33,800	16,900	101,400
1199	Sub Total	16,900	33,800	33,800	16,900	101,400
1200	Consultant					
1201	National Circumstances	26,000	15,350	2,000	0	43,350
	I. Updated National Circumstances of South Africa included in the Third National Communications	23,000	10,000	2,000	0	35,000
	II. National circumstances of BUR	3,000	5350	0	0	8,350
1202	GHG Inventories	310,000	530,000	100,000	0	940,000
	I. Completed National Greenhouse Gas Inventories for South Africa using the 2006 IPCC Guidelines, 2000 GPG and any other supporting tools for the TNC	260,000	460,000	100000	0	820,000
	National inventory for period 2001 to 2011 of energy activities, industrial processes, agricultural activities, land use change and forestry activities (LUCF), and waste sector activities; Major costs associated with supporting the project on development of land cover maps for three time steps (1990, 2000, 2013). These maps are going to be used to develop a land use change matrix.	50,000	70000	0	0	120,000
1203	Measures to facilitate adequate adaptation to climate change in TNC	330,000	310,000	140,000	25000	805,000
1204	Mitigation of climate change	70,000	400,000	230,000	0	700,000
	I. Measures to mitigate climate change in TNC	50,000	350,000	230,000	0	630,000
	II. Information on climate change mitigation actions	20,000	50000	0	0	70,000
1205	Other relevant information	50,000	231,000	146,000	30,000	457,000
	I. Integrate climate change considerations into social, economic and environmental policies and actions	5,000	10,000	20,000	5000	40,000
	II. Development and transfer of Technologies	5,000	80,000	35,000	5000	125,000
	III. Research and Systematic Observation	5,000	20,000	15,000	5000	45,000
	IV. Education, Training and Public Awareness	5,000	40,000	30,000	5000	80,000
	V. Capacity Building	0	15,000	15,000	5000	35,000
	VI. Information Sharing and Networking	0	10,000	10,000	0	20,000
	VII. Constraints, Gaps and related financial, technical and capacity needs for TNC	0	24,000	21,000	5000	50,000
	VIII. Constraints and gaps, and related financial, technical and capacity needs for BUR	8,000	2000	0	0	10,000
1206	I. Information on the level of support received to enable the preparation and submission of BUR	2,000		0	0	2,000
	II. Domestic measurement, reporting and verification for BUR	20,000	30000	0	0	50,000
1299	Sub Total	786,000	1,486,350	618,000	55,000	2,945,350

South Africa: Preparation for the Third National Communication and First Biennial Update Report under United Nations Framework Convention on Climate Change						
GFL/5070-pppp-nnnn						
Budget line	Activities	2014 (US\$)	2015 (US\$)	2016 (US\$)	2017 (US\$)	TOTAL (US\$)
1300	Administrative Support					
1301	Project Administration Assistant	4,800	9,600	9,600	4800	28,800
1302	Accountant (part time)	3,000	6,000	6,000	3000	18,000
1399	Sub Total	7,800	15,600	15,600	7,800	46,800
1600	Travel on Official Business					
1601	Staff Travel	3,000	6,000	6,000	3000	18,000
1699	Sub Total	3,000	6,000	6,000	3,000	18,000
1999	Component total	813,700	1,541,750	673,400	82,700	3,111,550
20	SUB-CONTRACT COMPONENT					
2300	Sub-Contracts (Commercial Purpose)					
2301	Preparation of public awareness materials, pamphlets, flyers, etc.	10,000	20,000	50,000	20000	100,000
2302	Preparation of land cover and risk profile maps	25,000	25000	40,000	10000	100,000
2399	Sub Total	35,000	45,000	90,000	30,000	200,000
2999	Component total	35,000	45,000	90,000	30,000	200,000
30	TRAINING COMPONENT					
3200	Training Component - Group training (field trips, workshops, seminars, etc.) on thematic areas of National Communications and Initiation workshop for TNC and BUR1	100,000	120,000	120,000	32000	372,000
3299	Component total	100,000	120,000	120,000	32,000	372,000
3300	Meetings / conferences					
3301	Participation in regional/global meetings (BUR, V&A, Mitigation, modelling, etc.)	4,000	4,000	4,000	0	12,000
3302	Presentation of BUR at COP session	0	6,000	0	0	6,000
3303	Presentation of TNC at COP session	0	0	0	6,000	6,000
3399	Sub Total	4,000	10,000	4,000	6,000	24,000
3999	Component total	104,000	130,000	124,000	38,000	396,000
40	EQUIPMENT AND PREMISES					
4100	Expendable Equipment					
4101	Office supplies (paper, ink cartridges, etc.)	1,000	1,500	1,500	1000	5,000
4199	Sub Total	1,000	1,500	1,500	1,000	5,000
4200	Non Expendable Equipment					
4201	Equip the Project Office (including 2 laptops + printer)	6,000	0	0	0	6,000
4299	Sub Total	6,000	0	0	0	6,000
4999	Component total	7,000	1,500	1,500	1,000	11,000
50	MISCELLANEOUS					
5200	Reporting					
5201	Printing of BUR and preparation of e-copies of BUR for circulation to stakeholders	0	50,000	0	0	50,000

South Africa: Preparation for the Third National Communication and First Biennial Update Report under United Nations Framework Convention on Climate Change						
GFL/5070-pppp-nnnn						
Budget line	Activities	2014 (US\$)	2015 (US\$)	2016 (US\$)	2017 (US\$)	TOTAL (US\$)
5202	Printing of TNC and preparation of e-copies of TNC and NIR for circulation to stakeholders; Printing of translated summaries of NIR and TNC for circulation to stakeholders	0	0	50,000	98,500	148,500
5299	Sub Total	0	50,000	50,000	98,500	198,500
5300	Sundry					
5301	Communication (local and international)	350	700	600	350	2,000
5302	Postage and courier services	450	900	800	450	2,600
5303	Annual audit	1,500	3,000	3,000	1500	9,000
5399	Sub Total	2,300	4,600	4,400	2,300	13,600
5500	Monitoring and Evaluation					
5501	Review BUR and GHG inventory	0	2,000	2,000	0	4,000
5502	Review V&A, Mitigation and other outputs - TNA, RSO, ETPA, etc.	0	4,000	8,000	0	12,000
5503	Monitoring and Evaluation, Mid-term review	0	25,000	35,000	0	60,000
5599	Sub Total	0	31,000	45,000	0	76,000
5999	Component Total	2,300	85,600	99,400	100,800	288,100
99	TOTAL PROJECT COST	962,000	1,803,850	988,300	252,500	4,006,650

ANNEX F-2: DETAILED CO-FINANCING BUDGET (IN UNEP FORMAT)

South Africa: Preparation for the Third National Communication and First Biennial Update Report under United Nations Framework Convention on Climate Change						
GFL- GFL/5070-pppp-nnnn						
UNEP Budget line	Activities	2014 (US\$)	2015 (US\$)	2016 (US\$)	2017 (US\$)	TOTAL (US\$)
10	PROJECT PERSONEL COMPONENT					
1100	Project Personnel					
1200	Consultant					
1300	Administrative Support	42,000	84,000	84,000	42,000	252,000
1600	Travel on Official Business	12,000	24,000	24,000	12,000	72,000
30	TRAINING COMPONENT					
3200	Training Component	25,000	50,000	50,000	25,000	150,000
3300	Meetings / conferences	7,500	15,000	15,000	7,500	45,000
40	EQUIPMENT AND PREMISES					
4200	Non Expendable Equipment	90,000	180,000	180,000	90,000	540,000
50	MISCELLANEOUS					
5200	Reporting					
5300	Sundry	30,000	60,000	60,000	30,000	180,000
5500	Monitoring and Evaluation	2,000	7,000	5,000	2,000	16,000
99	TOTAL PROJECT COST	208,500	420,000	418,000	208,500	1,255,000

ANNEX G: MONITORING AND EVALUATION BUDGET AND WORKPLAN

Type of M&E activity	Responsible Parties	Budget from GEF	Budget co-finance	Time Frame
Inception Meeting	National Project Coordinator, UNEP Task Manager	10,000	4,000	Within 2 months of project start-up
Inception Report	National Project Coordinator			1 month after project inception meeting
Measurement of project indicators (outcome, progress and performance indicators, GEF tracking tools) at national and global level	National Project Coordinator			Outcome indicators: start, mid and end of project Progress/perform. Indicators: annually
Semi-annual Progress/Operational Reports to UNEP and FAO	National Project Coordinator			Within 1 month of the end of reporting period i.e. on or before 31 January and 31 July
Project Steering Committee meetings and National Steering Committee meetings	National Project Coordinator and Administrative Assistant			Once a year minimum
Reports of PSC meetings	Administrative Assistant			Annually
PIR	National Project Coordinator, UNEP Task Manager			Annually, part of reporting routine
Monitoring visits to field sites	National Project Coordinator			As appropriate
Mid Term Review/Evaluation	National Project Coordinator, UNEP Task Manager and Administrative Assistant	25,000	7,000	At mid-point of project implementation
Terminal Evaluation	National Project Coordinator, UNEP Task Manager and Administrative Assistant	35,000	5,000	Within 6 months of end of project implementation
Audit	National Project Coordinator and Administrative Assistant			Annually
Project Final Report	National Project Coordinator			Within 2 months of the project completion date
Co-financing report	National Project Coordinator			Within 1 month of the PIR reporting period, i.e. on or before 31 July
Publication of Lessons Learnt and other project documents	National Project Coordinator, UNEP Task Manager			Annually, part of Semi-annual reports & Project Final Report
Total M&E Plan Budget		70,000	16,000	

ANNEX K: CHECKLIST FOR ENVIRONMENTAL AND SOCIAL ISSUES

Please note that as part of the GEFs evolving Fiduciary Standards that Implementing Agencies have to meet is the need to address ‘Environmental and Social Safeguards’.

To address this requirement UNEP-GEF has developed this checklist with the following guidance:

1. Initially filled in during concept development to help guide in the identification of possible risks and activities that will need to be included in the project design.
2. A completed checklist should accompany the PIF
3. Check list reviewed during PPG phase and updated as required
4. Final check list submitted with Project Package clearly showing what activities are being undertaken to address issues identified

Project Title:	<i>Enabling South Africa to Prepare its Third National Communication and Initial Biennial Update Report to the UNFCCC</i>		
GEF project ID and UNEP ID/IMIS Number	<i>GEF ID 5237 UNEP ADDIS 00983</i>	<i>Version of checklist</i>	
Project status (preparation, implementation, MTE/MTR, TE)	<i>EA</i>	Date of this version:	<i>20 December 2013</i>
Checklist prepared by (Name, Title, and Institution)	<i>George Manful, Task Manager, UNEP/DTIE GEF CCM Unit</i>		

In completing the checklist both short- and long-term impact shall be considered.

Section A: Project location

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Is the project area in or close to -		
- densely populated area	N/A	
- cultural heritage site	N/A	
- protected area	N/A	
- wetland	N/A	
- mangrove	N/A	
- buffer zone of protected area	N/A	
- special area for protection of biodiversity	N/A	
- Will project require temporary or permanent support facilities?	Yes	The project involves some level of field data collection across the country.
<i>If the project is anticipated to impact any of the above areas an Environmental Survey will be needed to determine if the project is in conflict with the protection of the area or if it will cause significant disturbance to the area.</i>		

Section B: Environmental impacts

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Are ecosystems related to project fragile or degraded?	N/A	
- Will project cause any loss of precious ecology, ecological, and economic functions due to construction of infrastructure?	N/A	
- Will project cause impairment of ecological opportunities?	N/A	
- Will project cause increase in peak and flood flows? (including from temporary or permanent waste waters)	N /A	
- Will project cause air, soil or water pollution?	N/A	
- Will project cause soil erosion and siltation?	N/A	
- Will project cause increased waste production?	N/A	
- Will project cause Hazardous Waste production?	N/A	
- Will project cause threat to local ecosystems due to invasive species?	N/A	
- Will project cause Greenhouse Gas Emissions?	N/A	
- Other environmental issues, e.g. noise and traffic	N/A	
<i>Only if it can be carefully justified that any negative impact from the project can be avoided or mitigated satisfactorily both in the short and long-term, can the project go ahead.</i>		

Section C: Social impacts

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Does the project respect internationally proclaimed human rights including dignity, cultural property and uniqueness and rights of indigenous people?	Yes	The project does respect the human rights including dignity, cultural property and uniqueness and rights of indigenous people in Kuwait.
- Are property rights on resources such as land tenure recognized by the existing laws in affected countries?	N/A	
- Will the project cause social problems and conflicts related to land tenure and access to resources?	No	
- Does the project incorporate measures to allow affected stakeholders' information	Yes	The project incorporates activities for information dissemination such as

	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
and consultation?		workshops and meetings where stakeholders will participate. This does not represent a risk for the project.
- Will the project affect the state of the targeted country's (-ies') institutional context?	No	
- Will the project cause change to beneficial uses of land or resources? (incl. loss of downstream beneficial uses (water supply or fisheries)?	No	
- Will the project cause technology or land use modification that may change present social and economic activities?	No	
- Will the project cause dislocation or involuntary resettlement of people?	No	
- Will the project cause uncontrolled in-migration (short- and long-term) with opening of roads to areas and possible overloading of social infrastructure?	No	
- Will the project cause increased local or regional unemployment?	No	
- Does the project include measures to avoid forced or child labour?	N/A	
- Does the project include measures to ensure a safe and healthy working environment for workers employed as part of the project?	No	
- Will the project cause impairment of recreational opportunities?	N/A	
- Will the project cause impairment of indigenous people's livelihoods or belief systems?	No	
- Will the project cause disproportionate impact to women or other disadvantaged or vulnerable groups?	No	
- Will the project involve and or be complicit in the alteration, damage or removal of any critical cultural heritage?	No	
- Does the project include measures to avoid corruption?	Yes	The Executing Agency (Department of Environmental Affairs) has in place stringent financial management policies and guidelines.
<i>Only if it can be carefully justified that any negative impact from the project can be avoided or mitigated satisfactorily both in the short and long-term, can the project go ahead.</i>		

Section D: Other considerations

If negative impact is identified or anticipated the Comment/Explanation field needs to include: Project stage for addressing the issue; Responsibility for addressing the issue; Budget implications, and other comments.

i	<i>Yes/No/N.A.</i>	<i>Comment/explanation</i>
- Does national regulation in affected country (-ies) require EIA and/or ESIA for this type of activity?	No	
- Is there national capacity to ensure a sound implementation of EIA and/or SIA requirements present in affected country (-ies)?	N/A	
- Is the project addressing issues, which are already addressed by other alternative approaches and projects?	No	

ANNEX L: ACRONYMS AND ABBREVIATIONS

ACSA	Airports Company South Africa
AD	Activity Data
AFOLU	Agriculture, Forestry and Other Land Use
BMU	Ministry for the Environment, Nature Conservation and Nuclear Safety (Germany)
BUR	Biennial Update Report
BUR1	First Biennial Update Report
CBO	Community-Based Organization
CO ₂	Carbon dioxide
COP	Conference of Parties
CSIR	Council for Scientific and Industrial Research
CSO	Civil Society Organization
DAFF	Department of Agriculture, Forestry and Fisheries
DANIDA	Danish International Development Agency
DEA	Department of Environmental Affairs
DOA	Department of Agriculture
DOE	Department of Energy
DST	Department of Science and Technology
DWA	Department of Water Affairs
EFs	Emission Factors
EPWP	Expanded Public Works Programme
ERC	Energy Research Centre
ESKOM	The South African Public Utility Electricity Company
ETPA	Education, Training and Public Awareness
FBW	Free Basic Water
GCMs	Global Climate Models
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIS	Geographic Information System
GPG	Good Practice Guidance
GRRL	Gautrain Rapid Rail Link
GTZ	Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation)
GW	GigaWatt
HSRC	Human Sciences Research Council
INC	Initial National Communication
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
LTAS	Long-Term Adaptation Scenarios
LUCF	Land Use Change and Forestry
m ³	metre cube
Mm	millimeter
M	Million

MDGs	Millennium Development Goals
MLRA	Marine Living Resources Act
MRV	Measurement, Reporting and Verification
MTS	Medium Term Strategy
MTSF	Medium-Term Strategic Framework
NCCRD	National Climate Change Response Database
NCCRP	National Climate Change Response Plan
NCs	National Communications
NDP	National Development Plan
NEMPAA	National Environmental Management: Protected Areas Act
NERSA	National Energy Regulator of South Africa
NFPAS	Natural Forests Protected Areas System
NGO	Non-Governmental Organization
NIR	National Inventory Report
NIU	National Inventory Unit
NPAES	National Protected Area Expansion Strategy
NPC	National Planning Commission
NPM	National Project Manager
NSSD	National Strategy for Sustainable Development
NWRS	National Water Resource Strategy
PC	Project Coordinator
PIW	Project Inception Workshop
PM	Project Manager
PMT	Project Management Team
PMU	Project Management Unit
PoW	Programme of Work
PSC	Project Steering Committee
PTC	Project Technical Coordinator
QA	Quality Assurance
QA/ QC	Quality Assurance/ Quality Control
QC	Quality Control
R	Rand
R&D	Research and Development
RCMs	Regional Climate Models
RSO	Research and Systematic Observation
SA	South Africa
SAICE	South African Institute of Civil Engineering
SANAE	South African National Antarctic Expedition
SANBI	South African National Biodiversity Institute
SANEDI	South African National Energy Development Institute
SANRAL	South African National Roads Agency
SAWS	South African Weather Service
SB	Subsidiary Body
SI	Sustainability Institute

SNC	Second National Communication
T	tonne
TNA	Technology Needs Assessment
TNC	Third National Communication
TORs	Terms of Reference
TFR	Transnet Freight Rail
TWh	TeraWatt-hour
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
US\$	United States Dollar
V & A	Vulnerability and Adaptation
WMAs	Water Management Areas
WSSD	World Summit on Sustainable Development
Yr	Year



UNITED NATIONS ENVIRONMENT PROGRAMME

Programme des Nations Unies pour l'environnement Programa de las Naciones Unidas para el Medio Ambiente
 Программа Организации Объединенных Наций по окружающей среде برنامج الأمم المتحدة للبيئة

联合国环境规划署



PROJECT IMPLEMENTATION PLAN: THIRD NATIONAL COMMUNICATION AND BIENNIAL UPDATE REPORT OF SOUTH AFRICA UNDER THE UNFCCC

SECTION 1: PROJECT IDENTIFICATION

- 1.1 Project title:** South Africa: Preparation of the Third National Communication and Biennial Update Report under UN Framework Convention on Climate Change (UNFCCC)
- 1.2 Project number:** GFL/5070-pppp-nnnn
PMS: GF/rrrr-mm-tt
- 1.3 Project type:** Enabling Activity
- 1.4 Sub-programme title:** GEF strategic long-term objective: Climate Change
Strategic programme for GEF V: Enabling Activity
- 1.5 UNEP priority:** Climate Change
- 1.6 Geographical scope:** National: South Africa
- 1.7 Mode of execution:** External
- 1.8 Project executing organization:** Department of Environmental Affairs, Private Bag X447, Pretoria, 0001, South Africa.
- 1.9 Duration of project:** 36 months
Commencing: July 2014
Completion: June 2017

Origin of the fund	2014	2015	2016	2017	Total	%
Cost to GEF Trust Fund	962,000	1,803,850	988,300	252,500	4,006,650	74.8
Government in-cash contribution	208,500	420,000	418,000	208,500	1,255,000	23.4
UNEP in-kind contribution	16,000	32,000	32,000	16,000	96,000	1.8
Total cost	1,186,500	2,255,850	1,438,300	477,000	5,357,650	100

Project Summary

This project is being pursued to support South Africa in the preparation of its Third National Communication and First Biennial Update Report to the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC). The main components of the project are as follows:

(a) Description of National Circumstances; (b) The National inventory of the greenhouse gases for the period 2011 to 2012 utilizing the 1996 IPCC guidelines and 2000 Good Practice Guidance; (c) Vulnerability and adaptation assessments of the impacts of climate change on Agriculture, Water Resources, Forest and other terrestrial Ecosystems, Coastal Zone and Health; (d) Measures to address climate change mitigation; (e) Efforts to further integrate climate change into development planning and the work programmes of national institutions; (f) An assessment of Other Information Relevant to the Convention to identify constraints, gaps and related financial, technical and capacity needs for technologies, research, systematic observation, education, training and public awareness; (g) Compilation and production of the Third National Communication and First Biennial Update Report (BUR1) of South Africa to the Conference of the Parties.

The preparation of the TNC and BUR1 is also expected to enhance general awareness and knowledge on climate change-related issues in South Africa. It should seek to assist in the process of national planning and policy formulation, especially as it relates to mainstreaming vulnerability and adaptation, and mitigation measures within the work programme of the various stakeholder agencies. In addition, it will contribute to the social and economic development of the country by reducing vulnerability associated with climate change, or proposing options to do so in the sectors mentioned above while reducing emissions and enhancing sinks of greenhouse gases.

Signature on behalf of the
Government of South Africa

Signature on behalf of UNEP

Zahir Fakir
GEF Operational Focal Point
Department of Environmental Affairs

Ms. Lia Noronha
Director,
Division of Technology, Industry and
Economics, UNEP

Date: _____

Date: _____

LIST OF ABBREVIATIONS AND ACRONYMS

AD	Activity Data
AFOLU	Agriculture, Forestry and Other Land Use
BMU	Ministry for the Environment, Nature Conservation and Nuclear Safety (Germany)
BUR	Biennial Update Report
BUR1	First Biennial Update Report
CBO	Community-Based Organization
CO ₂	Carbon dioxide
COP	Conference of Parties
CSIR	Council for Scientific and Industrial Research
CSO	Civil Society Organization
DAFF	Department of Agriculture, Forestry and Fisheries
DANIDA	Danish International Development Agency
DEA	Department of Environmental Affairs
DOA	Department of Agriculture
DOE	Department of Energy
DST	Department of Science and Technology
DWA	Department of Water Affairs
EFs	Emission Factors
EPWP	Expanded Public Works Programme
ERC	Energy Research Centre
ESKOM	The South African Public Utility Electricity Company
ETPA	Education, Training and Public Awareness
FBW	Free Basic Water
GCMs	Global Climate Models
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIS	Geographic Information System
GPG	Good Practice Guidance
GRRL	Gautrain Rapid Rail Link
GTZ	Gesellschaft für Technische Zusammenarbeit
GW	GigaWatt
HSRC	Human Sciences Research Council
INC	Initial National Communication
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
LUCF	Land Use Change and Forestry
m ³	metre cube
mm	millimetre
M	Million
MDGs	Millennium Development Goals
MLRA	Marine Living Resources Act
MRV	Measurement, Reporting and Verification

MTS	Medium Term Strategy
MTSF	Medium-Term Strategic Framework
NCCRP	National Climate Change Response Plan
NCs	National Communications
NDP	National Development Plan
NEMPAA	National Environmental Management: Protected Areas Act
NERSA	National Energy Regulator of South Africa
NFPAS	Natural Forests Protected Areas System
NGO	Non-Governmental Organization
NIR	National Inventory Report
NPAES	National Protected Area Expansion Strategy
NPC	National Planning Commission
NPM	National Project Manager
NSSD	National Strategy for Sustainable Development
NWRS	National Water Resource Strategy
PC	Project Coordinator
PIW	Project Inception Workshop
PM	Project Manager
PMT	Project Management Team
PMU	Project Management Unit
PoW	Programme of Work
PSC	Project Steering Committee
PTC	Project Technical Coordinator
QA	Quality Assurance
QA/ QC	Quality Assurance/ Quality Control
QC	Quality Control
R	Rand
R&D	Research and Development
RCMs	Regional Climate Models
RSO	Research and Systematic Observation
SA	South Africa
SAICE	South African Institute of Civil Engineering
SANAE	South African National Antarctic Expedition
SANBI	South African National Biodiversity Institute
SANEDI	South African National Energy Development Institute
SANRAL	South African National Roads Agency
SB	Subsidiary Body
SI	Sustainability Institute
SNC	Second National Communication
T	tonne
TNA	Technology Needs Assessment
TNC	Third National Communication
TORs	Terms of Reference
TFR	Transnet Freight Rail

TWh	TeraWatt-hour
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
US\$	United States Dollar
V & A	Vulnerability and Adaptation
WMAs	Water Management Areas
WSSD	World Summit on Sustainable Development
Yr	Year

SECTION II: PROJECT OUTLINE

1. BACKGROUND AND CONTEXT

1.1 National Circumstances



Geographical location and size

1. The Republic of South Africa covers roughly 1, 221, 000 km² of the southernmost part of the African continent, and is situated at sub-tropical mid-latitudes, bordered by the Atlantic Ocean on its west coast, and the southern Indian Ocean on its south and east coasts. Its coastline stretches more than 2 500 km from Namibia in the west, southwards to the Cape and then northwards to the border with Mozambique. Fairly narrow coastal plateaus in the south and west are edged by coastal mountain ranges; and further to the interior an (escarpment borders the extensive elevated interior

plateau of much of central South Africa.

Figure 1: Map of the Republic of South Africa

2. The eastern reaches of the escarpment include the Drakensberg Mountain Range, which has the highest peaks in South Africa. One result of this geography is a generally dry but diverse climate, ranging from a temperate Mediterranean-type climate in the south-west to a warm sub-tropical climate in the north-east, and a warm, dry, desert environment in the central west and north-west, where South Africa borders on the Namib Desert of Namibia and the Kgalagadi (Kalahari) Desert of Botswana respectively. The highlands of the Drakensberg Mountains (also home to the land-locked country of Lesotho), have a cool, wet climate relative to the rest of South Africa. South Africa has nine provinces (each with its own provincial government), varying in size from the small but highly urbanized Gauteng province (home to major urban centres) in the north-east, to the vast and arid Northern Cape province in the northwest (see Figure 1).

3. The provinces are generally geographically and climatically distinct, and this, in addition to the historical development of mineral resources, is partly instrumental in determining sub-national socio-economic diversity. Finally, in the Southern Ocean, the sub-Antarctic Prince Edward and Marion Islands (46°46'S, 37°51'E) are politically part of South Africa, and South Africa maintains a manned weather station on Gough Island (40°20'S, 10°0'W) that serves as an important remote weather station for South Africa, being situated in the path of rain-bearing cold fronts that sweep eastwards towards South Africa. While South Africa does not have a territorial claim in Antarctica, it is a founding member of the Antarctica Treaty, and maintains a non-permanent team conducting research in the natural sciences and meteorology at the South African National Antarctic Expedition (SANAE) IV base.

Demographics and population density

4. The South African population is estimated at roughly 50 million people with an annual population growth rate of 0.5% projected for 2010–2015; a median age that has risen from 21.9 to 24.9 years between 1990 and 2010; a fertility rate that has declined from 3.3 to 2.4%; and a dependency rate that has declined from 72.7 to 53.6% (UNDP 2010). Eleven languages are officially recognized, indicating South Africa’s cultural diversity. The spatial distribution of people is geographically skewed; partly as a legacy of spatial planning under apartheid, that marginalized a large proportion of the population by locating them in mostly rural areas that were geographically dispersed, spatially fragmented, and remote from economic opportunities.

5. One result of this is concentrated rural populations in these historical ‘homeland’ areas, with a high reliance on subsistence activities and on grants, remittances, and other forms of transferable income. Strong socio-economic and policy drivers of migration into urban centres have been at play, especially since 1994, as indicated by the urban population increase from 52 to 62% over the past two decades (UNDP 2010); and migration is significant in shaping the age structure and distribution of provincial populations. Rapid urbanization and the growth of informal settlements mainly on urban fringes of both major cities and secondary towns have led to a range of challenges.

6. These include the location of settlements in areas prone to flooding, difficulties in achieving the delivery of basic services (water, sanitation, and electricity), inadequate housing, and other related problems that exacerbate poverty. Up to half of all informal dwellings in South Africa are vulnerable to environmental risk factors.

7. On the back of historical urban planning approaches, these urbanization trends have also resulted in low income groups being marginalized from employment opportunities. In combination with high levels of poverty and unemployment, this growth in informal settlements and attendant poor living conditions and service delivery challenges, all add to the exposure and vulnerability of millions of South Africans to environmental change.

Climate

8. With a sub-tropical location, South Africa’s generally warm climate is moderated by oceanic influences along its extensive coastline and by the altitude of the interior plateau. South Africa is renowned for its abundant sunshine. Air temperatures in South Africa tend to be lower than in other countries at similar latitudes due mainly to greater elevation above sea level. On the interior plateau, the high altitude prevents average summer temperatures from exceeding 30°C, and in winter, night-time temperatures in the interior can drop below freezing, but this is very seldom the case for coastal regions. While snow frequently occurs on the escarpment in winter, no part of the escarpment is permanently snow-covered. Average annual temperatures differ strongly between west and east coasts, due mainly to the influences of the northward flowing, cold Benguela Current on the west coast and the tropical, warm, southward flowing Agulhas Current on the east and south coast.

9. South Africa has a generally dry climate (especially towards the north-west), with an average annual rainfall of about 450 mm (compared to a world average of about 860 mm). While the Western Cape gets most of its rainfall in winter, the rest of the country generally has summer rainfall, with a small southern region of all-year rainfall. Rainfall is variable between years. South Africa’s climate is influenced by multi-year *El Niño/La Niña* climatic cycles that tend to cause dry conditions in the summer rainfall areas during *El*

Niño years, while *La Niña* conditions are often associated with increased summer rainfall. Rainfall is generally variable, especially in the arid west and northwest, with both periodic drought and flood conditions not uncommon through most of the country.

Flora and Fauna

10. South Africa is one of the richest countries in the world in terms of diversity of plants and animals (marine and terrestrial), and levels of endemism. Three of 34 biodiversity ‘hotspots’ identified internationally are in South Africa (the Cape Floristic Region in the Western Cape, the succulent Karoo region in parts of the Western and Northern Cape provinces and extending into Namibia, and the Maputoland-Pondoland-Albany region in parts of KwaZulu-Natal, the Eastern Cape, Swaziland, and extending into Mpumalanga and the southern-most part of Mozambique).

11. These ‘hotspots’ contain high concentrations of endemic plant and animal species, in areas most threatened by human activity. South Africa’s biodiversity is exposed to significant risks with 44% of river ecosystems, 23% of estuarine ecosystems, 12% of marine ecosystems, and 5% of terrestrial ecosystems in South Africa all critically endangered. South Africa’s forests have been reduced by 46%, mangrove swamps by 90%, and grasslands by 60–80% over the past two centuries.

12. Invasions by alien species not only threaten endemic populations, but also consume 3 000 Mm³ of water per year, equivalent to about 7% of the country’s annual surface-water resources. The White Paper on the Conservation and Sustainable Use of South Africa’s Biological Diversity (1997) seeks to improve capacity to conserve and use biodiversity, address threats, and create conditions and incentives that support conservation and sustainable use of biodiversity.

13. Natural land-cover types are shrublands (~40%), savanna woodlands (~33%), and grasslands (~27%), with forests and deserts making up a small fraction of less than 1% together. Roughly 11% of land is formally cultivated, and 1.5% is covered by cities and towns. The extent of woodlands has increased in the past few decades, due to colonisation of previously grassy ecosystems by shrubs and trees (termed ‘bush-encroachment’). There is some evidence that bush-encroachment is partly as a result of the direct effect of rising atmospheric CO₂, which favours the growth of woody plants. South Africa has a long history of introductions of alien species, with a pronounced increase following the arrival of European settlers in the 17th century.

14. South Africa currently hosts approximately 8 750 alien plant species, 180 of which are invasive (*i.e.* have established themselves and are spreading into natural vegetation) and have invaded about 8% of South Africa’s surface area. Future expansion of invasive plants could reduce the integrity of all South African biomes by reducing indigenous species richness by roughly 60–80%. Freshwater ecosystems are also at risk, with 37 invasive alien species of freshwater fish currently recorded. Natural biodiversity is conserved in an extensive protected areas system as recognized in the National Environmental Management: Protected Areas Act (NEMPAA) (Act no. 57 of 2003), that covers roughly 7% of the terrestrial surface area. Over the next five years, in order to move a quarter of the way to meeting the 20-year protected area targets according to the National Protected Area Expansion Strategy (NPAES), a further 2.7 million ha must be added to the land-based protected area network.

Water resources

15. South Africa is a water-scarce country (annual freshwater availability is less than 1 700 m³ *per capita*), with limited average rainfall of about 450 mm/yr and unevenly distributed water resources. South

Africa has an annual mean-runoff value of 40 mm, one seventh of the global average of 260 mm, and rainfall and river flow are variable, erratic, and seasonal. Less than 9% of rainfall converts to river flow. South Africa's average river runoff is currently about 49 040 Mm³/yr, including 5 500 Mm³/yr from Lesotho and Swaziland. South Africa's dam storage capacity is 66% of this volume with the reliable surface-water yield at 82% of its maximum capacity under current rainfall and evaporation conditions.

16. The key water-producing basins are located along the watershed of the great escarpment, and serve as the source for several large inter-basin water transfer schemes. Water has historically been allocated to meet the demands of irrigated agriculture, mining projects, and urban growth. More recently, government has strived to allocate water resources to meet the needs of a growing economy, to ensure food security, and to maintain ecological integrity and environmental quality. In pursuit of the Millennium Development Goals (MDG), the state has provided access to basic water services for 9 million people since 1994, but this has been concentrated in the urban areas.

17. The Free Basic Water (FBW) policy of 2001 provides the first six kilolitres of water free to all households. By 2006, however, 3.3 million people still lacked access to adequate, clean water supplies, with another 15.3 million being without access to sanitation services. Within the national department, the country is divided into 19 Water Management Areas (WMAs), with the aim of decentralizing the management of water to stakeholders who are directly affected by water resource management decisions.

18. Ten of the 19 WMAs have water deficits and there is competition between utilization for agricultural, industrial, and social demand, and meeting the legal requirement to maintain the ecological integrity of the system (estimated at 20% of natural river flow)—with adverse effects on the statuses of natural river systems. The sustainable use of several trans-boundary aquifers would benefit from improved forms of management and investment in scientific understanding. Several large dams and inter-basin transfer schemes have been installed to address various needs such as urban development areas, water requirements of thermal power generation, mining centres, and some regions of agricultural activity.

19. South Africa's groundwater aquifers are estimated to store roughly 235 000 Mm³ of water, but the quality and availability of data on groundwater resources and their recharge rates compromise sound management decisions. Current estimates of exploitable groundwater are variously 4 800 Mm³/yr (Scholes & Biggs 2004), 6 000 Mm³/yr, 10 000 Mm³/yr and 19 000 Mm³/yr the latter of which is accepted by the National Water Resource Strategy (NWRS). Groundwater is used extensively in rural and more arid parts of South Africa. It is a significant resource to many irrigation farmers, small towns in more arid parts of the country, and areas where surface-water resources are already fully committed. Rural communities in many parts of the country are largely or wholly dependent on groundwater.

20. A result of the reliance on groundwater is indicated by the constant slow decline in groundwater levels, despite the seasonal fluctuations, attesting to unsustainable rates of use. Monitoring programmes in some regions are not adhered to and there is a lack of proper management of groundwater resources at national and local levels. Impacts of mining projects and their practice of groundwater removal are severe. Acid mine drainage is almost certainly the biggest threat to groundwater, especially in the vicinity of coal and gold mining activities. Further such exploitation of groundwater could have significant adverse environmental effects.

21. Official estimates suggest that South Africa faces shortages of between 2 and 13% of total water requirements by 2025, but some estimates that include climate change projections and other uncertainties,

suggest that these could run to as high as 19–33% by 2025. The agricultural sector uses most of the available surface-water resources in South Africa, estimated at about 60%, using various irrigation practices.

22. Plantation forestry uses significant amounts of water, sometimes creating tensions with other stream-flow users downstream, and forestry has been declared a stream-flow reducing activity, with licenses issued by the Department of Water Affairs (DWA). Invasive alien trees, sometimes associated with commercial forestry, consume about 3 000 Mm³/yr, equivalent to about 7% of total available runoff.

23. Water demand is growing most rapidly in the main metropolitan centres, indicating a need for municipalities to manage and co-ordinate both demand and supply. Generally, however, they are under-resourced, and this is likely to put them in competition with their hinterlands. Treatment of wastewater has not tracked growth in demand and use, and poor quality of surface waters is increasingly a problem in much of the country. While there is limited undeveloped surface-water resource potential, there is potential for increasing re-use of return-flows in some coastal cities, where wastewater is currently discharged into the ocean.

Economy

24. South Africa is a middle developing country with well-developed financial, legal, communications, energy, and transport sectors, mainly in the urban areas. South Africa's national GDP was R1 750 billion (US\$248 billion) in 2007, which translates to *per capita* GDP of R36 461 (US\$5 168). From 2000 to 2008, GDP growth ranged roughly between 2.7 and 5.6%, dropped to -1.8% during the 2009 financial crisis, and recovered to 3.0% in 2010. Economic reforms since 1994 have contributed to a reduction in the budget deficit, and a budget surplus of 0.3% was achieved in 2006/7. To some extent, these gains have led to some declines in poverty measures after 2000, although a lack of reliable data has constrained a clear analysis.

25. Since 1994, growth in *per capita* expenditure has been pro-poor in an absolute sense, with individuals across the income spectrum experiencing positive income growth, irrespective of gender. However, the total number of people living in relative poverty has risen by 31.5%, linked to increasing inequality in the share of income or expenditure. High relative growth for high income levels has therefore increased the Gini coefficient.

26. The share of GDP due to social grant expenditure has increased markedly since 1994, including an increase from 2.5 to over 3% of GDP between 1997 and 2005; with numbers of social grant recipients more than tripling to more than nine million, driven mostly by the extension of the child support grant. Without social grants, the calculated Gini coefficient for 2005/6 would have increased from 0.72 to 0.76 (Statistics SA 2008).

27. South Africa has seen a shift in sectoral share of GDP in the past few decades that mirrors those of many developing countries and is in line with global trends of greater relative activity in services-oriented sectors (Table 1.1). Tertiary sectors have increased their GDP share from about 55% in 1970 to just over 65% in 2007, with declining shares mainly in the primary sector, and to a lesser extent in the secondary sector. Nonetheless, mining-based products contributed more than 50% of the value of South Africa's exports in 2009.

28. South Africa has an abundant supply of mineral resources and is a world leader in mining and minerals, with significant global reserves and production. The economy was originally built on natural resources with agriculture and mining being the major components of the GDP, but the industry has seen the

loss of several thousand jobs over the past few years. South Africa's mining industry remains, however, one of the country's main employers.

29. The coal industry is the second largest mining sector after gold. Currently, 33% of the coal mined in South Africa is exported. Although mining output has declined in general, coal mining has seen an increased output, with annual coal sales topping R70 billion. The coal mining industry contributes 70 000 jobs and the mining sector overall almost 500 000 direct jobs making the extractive mining sector a significant job creator in South Africa.

30. Trends show that South Africa's economy has diversified in the past few decades, and new growth sectors are emerging. In particular, there has been strong growth in the tourism sector since 1994, with an average growth of 6% over the past five years and a contribution of about R79 billion, or 8.2% of national GDP, and an increase in tourism related jobs of 10% in 2008. Growth has also been strong in the financial services sector.

31. In response to challenges of inequality, poverty, and high unemployment, successive governments since 1994 have put in place initiatives that aimed to reduce poverty and unemployment, primarily through targeting higher GDP growth rates. Initiatives include the National Spatial Development Perspective (NSDP) that sets out principles to guide government allocation of resources between development in strong economic centres and the provision of basic services in areas of lower economic potential; the Expanded Public Works Programme (EPWP) launched in 2004 and aimed at creating one million job opportunities over five years; an infrastructure investment programme; and education and skills development. National government envisions a substantial increase of up to 8% of GDP in government infrastructure expenditure, intended to reverse the backlog in public infrastructure.

32. Recently, the newly constituted Ministry in the Presidency, the National Planning Commission (NPC), released its Medium-Term Strategic Framework (MTSF) 2009–2014. This document outlines the government's 'Vision 2025', pursues these objectives further, and encompasses a set of objectives based on the electoral mandate, with a fifteen-year time horizon from 2010.

33. The MTSF 2009–2014's main economic priorities are to accelerate economic growth and transform the economy to create decent work and sustainable livelihoods; elaborate an extensive programme to build economic and social infrastructure; put in place a comprehensive rural development strategy linked to land and agrarian reform and food security; strengthen the skills and human resource base; pursue regional development; and build a developmental state including improvement of public services.

Agriculture, Forestry and Fisheries

34. Agriculture, forestry, and fishing together account for less than 3% of GDP in 2006 (Table 1.1), following a downward trend in the past few decades, and currently employ 618 000 people in the formal and informal sectors. The agriculture sector is described as dualistic, dominated in economic output terms by sophisticated, large-scale commercial farming, but with an important small-scale and subsistence sector.

35. The total contribution of agriculture to the economy increased from R27 billion in 2001 to R36 billion in 2007. The total gross value of agricultural production for 2007/08 is estimated at R112 billion compared to R93 billion the previous year. The majority (48.2%) of income was from the sale of animals and animal products, followed by field crops (26.7%), and horticultural produce (25.1%) in 2008/9. South Africa's largest agricultural commodity by mass in 2007 was sugarcane. Cattle meat produce is also a significant agricultural commodity, followed by chicken meat, grapes, and dairy. Most of South Africa's

food processing industry is based in Gauteng and the Western Cape, and value-added agriculture includes canning, drying, and processing.

36. The Department of Agriculture (DOA) drafted a food security strategy for South Africa in 2002 in response to the lack of both co-ordination and effectiveness of government departments in working towards access to food and water for all. The goal is to ensure that the targeted population gains access to productive resources; that they gain access to income and job opportunities to enhance their purchasing power; that they are empowered to have nutritious and safe food; that the state provides relief measures for the destitute; and that interventions will be informed by accurate information.

37. South Africa's plantation forests are based on non-native trees, and cover 1.4% of the cultivated land. In 1996/7 the total turnover for forestry was around R13.1 billion and the industry employed more than 150 000 people. It currently employs close to 170 000 people and contributes more than R16 billion to the South African economy, with an annual production of 2.2 million m³ of commercial round wood with a calculated value of R5.1 billion.

38. Exports are mainly converted, value-added products, with raw material exports only making up 1.8% of the total. The main products exported are pulp and paper (73% of the total export), sawn lumber, wood chips, and wattle extract. The private sector currently owns 70% of the total plantation area, as well as virtually all the processing plants. The Department of Agriculture, Forestry and Fisheries (DAFF) is currently involved in a process of restructuring the state's commercial forests and transferring ownership of these forests to the private sector or other forms of land use, mainly conservation.

39. The afforestation rate is declining. South Africa has about 530 000 ha of indigenous forests, found mainly along the southern and eastern escarpment, along the coastal belt, and in fire-protected ravines in the mountains of the southern and south-western Cape. A detailed inventory monitors changes in forested areas, classified into 24 broad forest types. The Natural Forests Protected Areas System (NFPAS) guides the designation of natural forests as protected areas. Natural forests serve as increasingly important sources of building material, fuel wood, food, and medicine (as roughly 80% of South Africa's people rely on medicinal plants).

40. The commercial and recreational fishing industries are a relatively small economic sector, contributing about 1% of GDP, valued at approximately R4–5 billion annually, and providing employment for an estimated 2 770 022 individuals, with secondary industries such as fish processing, transporting of fish products, and boat building employing a further 60 000.

41. South African marine fisheries are diverse and dependent on different ecosystems (from coastal to offshore), but the main commercial stocks are sardine and anchovy, Cape hake, horse mackerel, rock lobster, tunas and shark, *Loligo* squid, and a composite group of so-called 'line-fish'. The anchovy and sardine fishery is the largest by volume, and is strongly dependent on the status of upwelling in the west coast region of the Benguela Current ecosystem, while the south coast Agulhas Current ecosystem is important for spawning of these species.

42. South Africa has experienced significant declines in catches and the loss of many species both as a result of over-fishing, and due to the natural migration of fish populations related to environmental changes, prompting government to apply controls to the fishing sector. The Marine Living Resources Act (MLRA) (Act no. 18 of 1998) resulted in a significant restructuring of the commercial fishing industry, and had mixed impacts on the small and subsistence fishing sector.

43. Subsistence fishing and marine resource harvesting practices, although small and localized, are important for some coastal subsistence livelihoods. Despite the legislation, poorly controlled poaching and illegal fishing are adversely affecting high-value species. The aquaculture industry is small but growing. Mariculture developments include abalone, black mussel, oyster, prawn, finfish, and seaweed production. Abalone farming, mainly on the Cape south coast in South Africa, supplies 21 % of the global market, and is expanding rapidly. Experimental offshore salmon and cob ‘cage’ farming in south coast areas is underway, and indications are that mariculture production could increase substantially.

Energy

44. South Africa has abundant energy resources in the form of fossil fuels (mainly coal), and renewables (mainly localized wind and biomass, and solar), but limited hydropower. The main sources of supply to the energy grid are currently coal and nuclear. Biomass forms an important energy source in the rural domestic sector, while other renewable energy development opportunities are being explored in the fields of solar power, wind power, pumped storage, and in hydropower schemes.

45. South Africa’s economy is heavily dependent on coal. South African coal reserves have been estimated at roughly 30 billion tonnes, accounting for 95% of African coal reserves and 4% of world reserves. Coal provided an estimated 72% share of the country’s total primary energy supply in 2007 and accounts for approximately 85% of electricity generation capacity. Coal is also a major feedstock for the country’s synthetic fuel industry. Energy production is therefore carbon-intensive.

46. The Department of Energy (DOE) is the entity responsible for defining and implementing the policy framework for the energy sector, while the National Energy Regulator of South Africa (NERSA), an autonomous entity, is responsible for regulating the sector, including the establishment of an overall electricity tariff regime. Eskom Holdings Ltd (Eskom), which is a vertically integrated public utility, is responsible for 96% of South Africa’s electricity generation, all transmission, and 60% of distribution. Private generators account for about 3% of generation (mostly for their own consumption), and municipalities account for the remaining 1%. The balance of electricity distribution is undertaken by the local authorities (about 185 in total) that buy in bulk from Eskom.

47. The electricity sector of South Africa includes roughly 42 GW of installed power generating capacity providing electricity to 81% of South Africa’s population through 28 000 km of high voltage transmission lines. A public entity, the South African National Energy Development Institute (SANEDI), was established in 2008 for the sole purpose of assisting the Department of Energy to achieve its strategic objectives as set out in the National Energy Act, 2008 (No. 34 of 2008). SANEDI is entrusted with promoting diversification of energy supply, incubation and commercialization of energy technologies, stimulation of energy R&D and development of human capital in the energy sector..

48. The Department of Energy is a custodian of SANEDI and provides its political and strategic focus. South Africa’s proposed electricity supply development is outlined in the gazette Integrated Resource Plan (IRP) for Electricity (IRP 2010), which went through a process of public consultation and revision of the initially proposed revised balanced scenario, referred to as the policy-adjusted IRP.

49. The plan outlines energy efficiency demand-side management measures of 3.4 GW by 2030, and a new fleet build for 2010–2030, which has an emission constraint of 275 MT CO₂ per year after 2024. This includes a nuclear fleet of 9.6 GW to account for uncertainties related to the costs of renewables and fuels, 6.3 GW coal (in addition to an already committed 10 GW build underway), 17.8 GW of renewables (which

installation was advanced to stimulate local industry), and 8.9 GW from imported hydro and gas turbines. By 2030, this plan will increase South Africa's electricity generation capacity from the current 260 TWh to 454 TWh. The IRP is seen as a living plan, with review and revision expected on a two yearly basis.

Infrastructure and Transport

50. The recent South African Institute of Civil Engineering (SAICE) report card ranks South Africa's infrastructure overall as a C-, where C indicates that it is satisfactory but stressed at peak periods, and D that it is at risk due to being over-stressed and poorly maintained. Rankings for ten major infrastructure types range from E- to B+, with rankings lower for locally vs. nationally maintained infrastructure. Key issues identified are the severe shortage of skills and its impact on planning, procurement, design, construction, and care of infrastructure; as well as inadequate funding for maintenance of existing and newly built infrastructure.

51. South Africa's transport sector is dominated by road travel, but has good port and rail infrastructure and a growing air travel industry. Domestic travel patterns are characterized by large distances between settlements and places of employment, and low density settlement patterns. South Africa has a higher than world average car ownership ratio, which can be attributed partly to the legacy of historical spatial planning at an urban and regional level. Nonetheless, 60% of all human transport is on foot or by bicycle, with 37% being by road and 2.5% by train. Within the road transport sector, 19% is due to private vehicle trips, and 11.5% due to minibus-taxis.

52. The taxi industry continues to grow (63% of the commuting share, compared with 22% for the bus sector, and 15% for trains), and a recapitalization programme was introduced to formalize the taxi industry. Some major metropolitan areas are adopting Bus Rapid Transport (BRT) systems along the most centralized and congested routes and integrating these with the existing taxi industry where possible. The South African National Roads Agency (SANRAL) oversees a national roads network of approximately 750 000 km.

53. While road transport offers greater convenience than rail transport and other forms of public transport, it is responsible for air pollution, congestion, and fossil fuel consumption. The road-based freight sector causes damage to road surfaces, and efforts are being made to regulate overloading in road transport and to better integrate the secondary economy into the freight services industry. SANRAL estimates that there is currently a R50 billion backlog on key national and provincial roads, with an associated annual maintenance budget of R12 billion.

54. There is significant potential for freight and passenger rail to enhance their contribution within the transport sector. Only 13% of freight tonnage is moved by train, and potential for expansion of the rail freight industry is significant as the existing infrastructure is extensive and technologically advanced, with strong regional links and interests. The Transnet Freight Rail (TFR) network comprises 21 000 km of rail, with 800 trains running daily for both domestic and cross-border trade.

55. An upgrade strategy is being implemented that will invest R80.5 billion in the next five years, building on the R53.5 billion invested since 2005. Metrorail, a division of the Passenger Rail Agency of South Africa (PRASA), is a state-owned enterprise that operates commuter rail services in the major urban areas of South Africa. The state-subsidized Metrorail system transports an average of 1.7 million passengers per working day. The recently completed Gautrain Rapid Rail Link (GRRL) between Johannesburg and the Tshwane Metropolitan is anticipated to reduce related commuter road traffic by 20%.

56. South Africa has eight international coastal ports, among the best developed network in Africa. About 98% of South Africa's exports are conveyed by sea. Transnet spent R19.4 billion in 2009 on maintenance and development of ports alone. The air travel industry was deregulated in the early 1990s, which along with increased international travel, has resulted in a 10% increase in air travel per annum over the last three years, to 32.8 million passengers in 2008.

Environmental management and policies

57. The Department of Environmental Affairs is responsible for the protection and management of South Africa's natural resources in a manner that fosters sustainability and creates a healthy living environment for all the citizens of the country. To this end, the department adheres to and promotes strong environmental governance in order to address the environmental and development challenges that confront our communities. Indeed, the implementation of these policies, and the actualization of the objective of the department depends both sound guidance and the availability of resources. In November 2011, South Africa promulgated its National Climate Change Response Policy-White Paper (NCCRP). The NCCRP set-out ambitious objectives and targets with regard to setting-up desired emissions reduction outcomes, implementation of climate change mitigation and adaptation flagship programmes, development of a monitoring and evaluation framework to track a transition to a low carbon economy and climate-resilient society. In response, the DEA has already completed work on the Mitigation Potential Analysis by sector to inform the desired emissions reduction outcomes, completed Long-Term Adaptation Scenarios to study possible future adaptation scenarios. A Monitoring and Evaluation framework is about to be finalized and used to design a web-based monitoring and evaluation system that will track amongst others, flagship programmes and mitigation plans to be submitted by emitting sectors. In relation to reporting obligations under the United Nations Framework Convention on Climate Change (UNFCCC), the NCCRP is detailed with regards to preparation and submission of national greenhouse gas inventories, biennial update reports and national communications. The NCCRP clearly outlines the need to set-up a national system of data collection to support international reporting requirements. As such, South Africa has partnered with the Kingdom of Norway to develop a national system that will, in line with the requirements of the NCCRP, produce national greenhouse gas inventories annually. More broadly, South Africa has developed robust policies on a number of environmental issues. All these policies including the NCCRP are premised on a principle of sound environmental governance. Environmental governance refers to the processes of decision-making involved in controlling and managing the environment and natural resources. It calls for amongst others; accountability, enforcement, integration of policies where necessary. Hence, the NCCRP is mostly build on the principle of integration. DEA recognize that climate change is a cross-cutting issue and therefore the implementation NCCRP feeds on all relevant government policies. In turn, the NCCRP itself is based on the National Development Plan (NDP). More broadly and following from the World Summit on Sustainable Development (WSSD), South Africa committed itself domestically to develop a National Strategy for Sustainable Development (NSSD). The NSSD ensures that environmental issues are addressed holistically and that environmental and biodiversity considerations are mainstreamed into the formal economy.

58. The Branch Specialist Unit: International Cooperation is responsible for the mobilization of resources to assist the department in addressing the national developmental agenda. In discharging these responsibilities the branch has to interact with development partners or donors interested in assisting South Africa to address environmental as well as climate change challenges.

59. These engagements take place in three forms:

- bilateral, which are between South Africa and a development partner;
- multilateral agreements, which describe agreements that take place through multi stakeholder international institutions; and
- Trilateral

60. Despite the fact that development assistance to South Africa comprises less than 1% of the country's GDP; donor assistance has strategic importance that provides a mechanism through which the department can fulfill its objectives.

61. Donor partnerships with DEA are as follows:

Partnership	Name of Project	Focal Area	Financing Institution
Bilateral	DEA-BMU(GTZ) Climate Change Support Programme	Climate Change	BMU/GTZ (Germany)
	Norwegian Environmental Programme	Environmental Management	Kingdom of Norway
	Urban Environmental Management Programme	Environmental Management	DANIDA (Denmark)
	South Africa-Australia collaboration on the MRV of AFOLU sector	Climate Change	Australian Government
Trilateral	Compilation of the Arid transfrontier conservation cluster integrated tourism development plan	Conservation and Tourism	USAID
Multilateral	National Communications for reporting to the MEAs	Climate change, desertification and Biodiversity	GEF

Project Institutional Arrangement

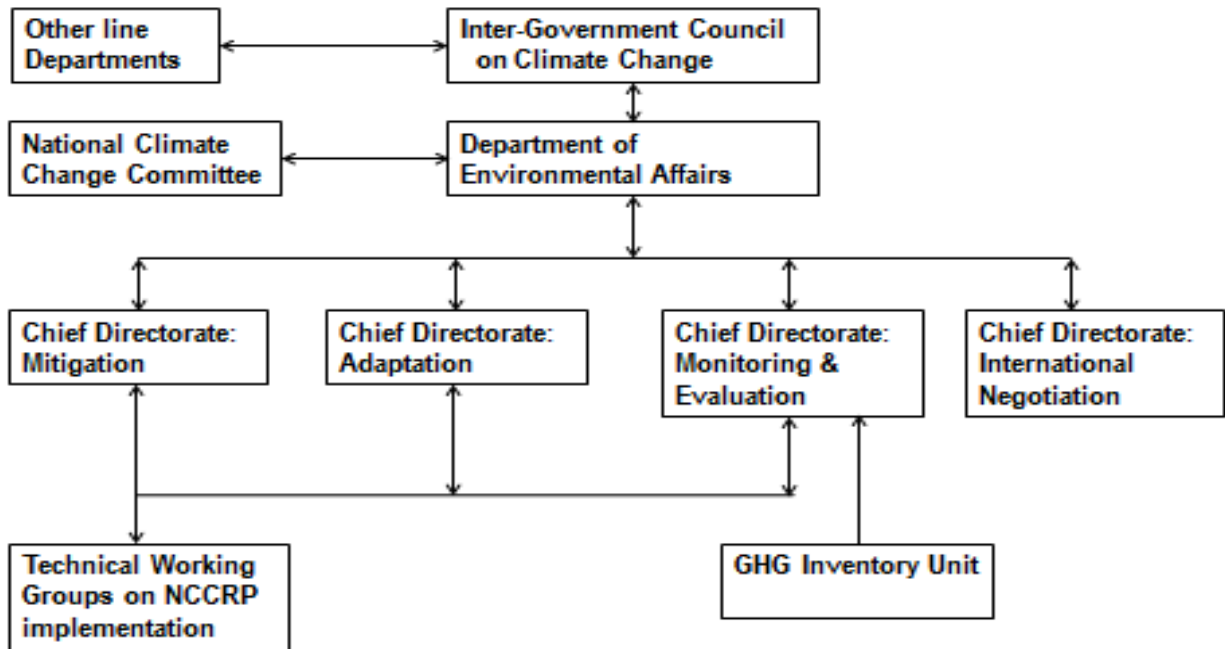
62. UNEP will serve as the Implementing Agency and the Department of Environmental Affairs (DEA) will serve as the National Executing Agency.

63. South Africa has in place a series of Directorates within its Department of Environmental Affairs on a permanent basis to oversee the different thematic areas of the National Communication as well as implementing the Convention. Thus, no problem at all is anticipated in managing and monitoring the implementation of the country activities.

64. All activities will be implemented by the various Directorates of the Department of Environmental Affairs in collaboration with other stakeholders as depicted below. The latter will contribute at different levels of the System within a transparent country driven approach. With regard to GHG inventories, the institutional arrangements existing presently will be further enhanced and consolidated to develop a GHG inventory management system within the Monitoring and Evaluation Directorate of the Department of

Environmental Affairs to oversee the regular production of inventories. Capacity enhancement started within the framework of preparation of the last National Inventory Report and will continue with the compilation of GHG inventories for the TNC and BUR1.

Fig: 1.2 Institutional Arrangements



65. A Project Steering Committee (PSC) will be set-up and chaired by the GEF Operational Focal Point, to include representatives of the Departments of Agriculture, Forest and Fisheries, Mineral Resources, National Treasury, Transport (Road, Rail, Air, and Marine), Water Affairs, various research institutes, the Project Coordinator (Secretary), a representative of the Civil Society, a representative of Academia and Women’s Organizations etc. The PSC will be specifically concerned with the timely implementation of project activities focusing mainly on policy issues.

66. The National Climate Committee will take overall and final decision on technical implementation of the project. The Project Coordinator and the GEF Focal Point, both sitting on the PSC will appropriately link and report to the PSC.

67. The Project Management Unit (PMU) will be managed by a Project Coordinator. The PMU includes a Project Administrative Assistant, and an Accounting Officer.

68. Appropriate monitoring and reporting will be facilitated and made possible through the timely development and provision, by the Project Coordinator, of quarterly technical and financial reports to the Project Steering Committee, at the national level, and to the Senior Task Manager and the Fund Management Officer in UNEP. Terminal Technical and Financial Reports will also be developed and provided by the Project Coordinator.

69. The accounts of the project may be subjected to regular auditing by the National Audit Office (Supreme Audit Institution) or a reputable auditing firm identified in consultation with UNEP. All audit reports will be provided to the appropriate authorities in UNEP.

70. The Project Coordinator will develop and maintain at the PMU an inventory of non-expendable equipment procured from project funds and will submit copies of such an inventory to UNEP. At the time of submission of the Terminal Report, the Project Coordinator will submit a consolidated report of the inventory of equipment. The inventory could be physically verified by a duly authorized official of the GEF Co-ordination Division or by the Auditor of the Project.

The responsibilities of the various project partners mentioned above are as follows:

71. South African Weather Service will be responsible for the production of long term climate trends and generation of climate change and Sea Level Rise scenarios for impact assessments. Department of Energy and ESKOM will be the main Collaborators for inventory and mitigation in the energy sector.

72. Department of Agriculture, Forest and Fisheries will be the main collaborator for inventory, adaptation and mitigation in the Agriculture, Forest and Fisheries sectors as appropriate.

73. Department of Mineral Resources will be the main collaborator for inventory and mitigation in the mineral resources sector.

74. Department of National Treasury will be the main collaborator in related fiscal policies and measures. Agricultural Research Council will support impact assessments, mitigation analysis and derivation of emission factors.

75. The Council for Scientific and Industrial Research (CSIR), the Human Sciences Research Council (HSRC), the South African National Energy Development Institute (SANEDI), the Department of Science and Technology, Research Institutions, the South African National Biodiversity Institute (SANBI); the Sustainability Institute (SI) and the Energy Research Centre (ERC) will conduct studies in relation to impact assessments, evaluate adaptation and/or mitigation measures and collaborate in deriving nationally appropriate emission factors for improving the GHG inventory; evaluate Research and Systematic Observation (RSO) needs for meeting climate change challenges; and plan the inclusion of climate change in tertiary and distance education programs.

76. Department of Transport (Road, Rail, Air, and Marine) will be the main collaborator for inventory and mitigation in the transport sector. Economic Development Department will support the impact assessments and studies on adaptation, mitigation and the green economy.

77. Department of Environmental Affairs will compile the inventory on waste; oversee impact assessments, adaptation/mitigation assessments and awareness raising. Department of Cooperative Governance and Traditional Affairs and South African Local Government Associations will provide support for the impact assessments and studies on adaptation.

78. Department of Water Affairs will support the impact assessments and studies on adaptation in the water resources sector. NGOs, CSOs, CBOs and indigenous people will act as partners for informal education and public awareness as well as providing the necessary support for developing community based adaptation.

SECTION III: PROJECT OBJECTIVE, OUTCOMES, OUTPUTS, ACTIVITIES AND MEANS OF VERIFICATION

A. PROJECT OBJECTIVE

79. The development objective of this proposal is to enable South Africa to prepare and submit its Third National Communication and First Biennial Update Report to the COP of the UNFCCC as required by Article 12 of the Convention and based on the COP 8 Guidelines for National Communications of Non-Annex I Parties (decision 17/CP.8).

80. The strategy of the project is to employ the best practice at the maximum extent possible and as well, international consultancy when needed. The project will build upon findings and experience gained through activities/projects aiming at addressing climate change issues and meeting the country's commitments under the UNFCCC.

81. The project will be executed by the Department of Environmental Affairs, in close collaboration with other relevant ministries and institutions. The success of the project largely depends on establishment of good business relations and common understanding among project staff, executing agency and UNEP. The project will implement activities needed to enable the Government of South Africa to prepare its Third National Communication and First Biennial Update Report.

82. The emphasis of the project will be on the GHG inventory, measures to mitigate climate change, assessment of vulnerability for the priority areas selected under the stocktaking exercises, as well as on education and public awareness. Building on results of these studies, the options to mitigate climate change by reduction of GHG emissions and facilitating adaptation to climate change for the selected priority area will be analyzed and reviewed in the light of country sustainable development context. Gaps, uncertainties and constraints along with other information related to the UNFCCC will be addressed as indicated by Decision 17/CP.8. Finally, the information gained during the project will be communicated to the COP in the form of the 'Third National Communication and First Biennial Update Report of the Government of South Africa under the UNFCCC'.

83. The main components of the project are:

- Description of the National Circumstances;
- National Inventory of GHGs;
- Assessment of the potential impacts of climate change and evaluation of adaptation measures for the most vulnerable sectors
- Description of measures that have been taken or are envisaged to mitigate GHGs;
- Other information relevant to the Convention to cover constraints, gaps and needs for technologies, research, systematic observation, education , training and public awareness to meet the challenges of climate change;
- Production of the First Biennial Update Report
- Production of the TNC report;

84. The Third National Communication and First Biennial Update Report preparation will rely on existing expertise in the country. Mobilization of local experts is a strategy for sustaining the knowledge in the related areas. This will also foster internal networking of national experts. The project would hire short-term international consultants if, and when necessary. The previous experience in institutional and technical capacity building in the area of climate change will be sustained and leveraged to support the preparation of

the TNC and BUR1 exercises. The new findings and data will facilitate promotion of innovative financing schemes for environmentally sound technology transfer.

85. The partnership between governmental institutions, international organizations, academia and NGOs will be utilized and improved by bringing more stakeholders on board and building an emerging partnership with the private sector that is crucial for promoting investments of cleaner technologies in the country. The role of the national Project Steering Committee (PSC) will be critical to the success of this strategy. In implementing the different activities the project, the PSC will follow the international adapted guidelines and use existing national methodologies and tools wherever available. Technical assistance will be provided by regional and local experts whenever possible.

Stocktaking and stakeholder consultations

86. In accordance with the recommendation of the GEF Operational Procedures for the Expedited Financing of National Communications from non-Annex I Parties (GEF, 2003), and in order to better prepare the project proposal for the preparation of the Third National Communication and First Biennial Update Report, the project will go through a process of participatory stakeholder consultations by various consultants and technical teams.

87. The aims of the project are to identify relevant individuals and institutions and organize stocktaking and stakeholder consultation on the anthropogenic emissions of GHGs in South Africa. This exercise will help in identifying Climate Change related activities being implemented or completed as well as needs and gaps. Results from this exercise will help in gathering information and data for the preparation of the National Communication and First Biennial Update Report on Climate Change for South Africa. The survey will also describe existing institutional arrangements relevant to the preparation of the Third National Communication and First Biennial Update Report of South Africa. This project provides an opportunity to establish adequate linkages with related institutions and individuals in Climate Change related activities in South Africa.

Table 1: Linkages with Past and On-Going Enabling Activities ¹

Activity in Third National Communication and First Biennial Update Report	SNC	TNA	Others
I. National Circumstances			
Description of development priorities, objectives and circumstances, etc	X		
Description of existing institutional arrangements for preparing communications continuously	X		
II. National Greenhouse Gas Inventory			
Estimation of national GHG emissions and removals for period 2011 to 2012	X		
Information on QA/QC and the level of uncertainty associated with the inventory data	X		
Description of arrangements to collect and archive data to make inventory preparation a continuous process	X		
Formulation of cost-effective programs to develop country-specific emission factors and activity data			
III. General description of steps			
Better understanding of climate change and projected climate change scenarios for V&A assessments	X		
Information on vulnerability to the adverse effects of climate change and on adaptation measures being taken and envisaged	X		
Development of policy frameworks, national adaptation programmes, plans and policies for mainstreaming and implementing adaptation strategies	X		
Information on mitigation measures being implemented and envisaged to reduce emissions and enhance removals of GHGs	X		
Information on the carbon sequestration potential of the country	X		
Description of steps taken for formulating programs containing measures to mitigate greenhouse gas emissions	X		
IV. Other Relevant Information			
Information on integrating climate change considerations into social, economic and environmental policies and actions	X		
Information on transfer of, and access to ESTs and know-how, development of endogenous capacities; measures to enhance enabling environment for transfer of technologies	X	X	
Information on Climate change research and systematic observation	X		

¹ Matrix to assist in stocktaking of activities financed under GEF enabling activities and other efforts. The boxes marked with an “X” simply means that some activities had been undertaken under some of the indicated projects. However, new and additional activities that can be fully justified will be undertaken during the process of the preparation of the Third National communication and First Biennial Update Report, and it will be ensured that there will be no duplication of activities.

Activity in Third National Communication and First Biennial Update Report	SNC	TNA	Others
Information on CC education, training and public awareness	X	X	
Information on Capacity Building Needs, Activities, Options and Priorities	X	X	
Information on efforts to promote information sharing and networking	X	X	
V. Constraints and Gaps; related Financial, Technical and Capacity Needs			
Constraints and Gaps and related financial, technical and capacity needs, and activities for overcoming gaps and constraints for national communications, and climate change measures and programs	X	X	
Financial resources and technical support for preparing national communications provided by themselves and the GEF	X	X	
Financial resources and technical support provided by various sources			
List of projects proposed for financing or in preparation for arranging technical/financial support			
Opportunities, barriers for implementation of adaptation measures, including pilot and/or demonstration projects			
Country-specific technology needs and assistance received from developed country Parties and the GEF, and how assistance was utilized			
VI. Biennial Update Report			
Estimates of GHG emissions and removals for the period 2001 and 2011	X		
Information on mitigation actions taken and envisaged	X		
Domestic measurement reporting and verification			
Information on the level of support received to enable the preparation and submission of BUR1	X		

B. PROJECT OUTCOMES, OUTPUTS, ACTIVITIES AND MEANS OF VERIFICATION

1. NATIONAL CIRCUMSTANCES

A. National Circumstances

Outcome 1.1

88. Review and update National Circumstances of South Africa with regard to climate change challenges

Output 1.1.1 and means of verification

89. Detailed report of national and regional priorities to address climate change concerns within the framework of national development programmes, plans and strategies – Report on priorities

90. The following activities are proposed for the achievement of output 1.1.1:

1.1.1 Review and analysis of national and regional programmes in place to address climate change concerns and challenges

1.1.2 Identify priorities and report on these

Output 1.1.2 and means of verification

91. In-depth description of the geography, climate, environmental and socio-economic profiles of the country with emphasis on sensitivity to climate change and climate variability – Descriptive report

92. The following activities are proposed for the achievement of output 1.1.2:

1.1.2.1 Collect updated information on the different country profiles

1.1.2.2 Assess this information relative to climate change and report thereon

Output 1.1.3 and means of verification

93. Thorough description of the institutional arrangements adopted for producing the third national communications including those related to the compilation of GHG inventories and the preparation of Biennial Update Report – Institutional arrangements report

94. The following activities are proposed for the achievement of output 1.1.3:

1.1.3.1 Identify, contact and consult with the stakeholders for their participation in the Institutional arrangements for producing the TNC

1.1.3.2 Identify, contact and consult with the stakeholders for their participation in the Institutional arrangements for the compilation of GHG inventories and the preparation of the BUR1

Output 1.1.4 and means of verification

95. Description of the national institutional framework for the effective implementation of measures to meet the objectives of the Convention – national institutional framework report

96. The following activities are proposed for the achievement of output 1.1.4:

1.1.4.1 Inform and secure the commitment of stakeholders for implementing actions reported in the TNC and BUR1

1.1.4.2 Report on the process and its implementation

Output 1.1.5 and means of verification

97. Organization of an induction workshop to present and launch the implementation of the third national communication – induction workshop report

98. The following activity is proposed for the achievement of output 1.1.5:

1.1.5.1 Combined induction workshop to present the TNC project and inform stakeholders of their participatory roles and responsibilities in its implementation and production

Output 1.1.6 and means of verification

99. Organization of an induction workshop to introduce, explain and launch the preparation of the Biennial Update Report

100. The following activity is proposed for the achievement of output 1.1.6:

1.1.6.1 Combined induction workshop to present the BUR1 project and inform stakeholders of their participatory roles and responsibilities in its implementation and production

2. NATIONAL GREENHOUSE GAS (GHG) INVENTORIES

101. With regards to strengthening institutional, technical and analytical capacities, a National Inventory Unit has been developed to prepare national greenhouse gas inventories annually. In addition, a project steering committee in anticipation of the TNC activities has been set-up and will meet quarterly to reflect on the progress made and provide guidance with respect to BUR, TNC and GHG Inventory activities. Furthermore, the department has collaborated with the South African Weather Service (SAWS) to develop web-based emissions reporting system called the South African Air Quality Information System (SAAQIS). This system will facilitate reporting of emissions data from key emitters. Similarly, the department has developed the National Climate Change Response Database (NCCRD) wherein all government and most of private mitigation and adaptation actions are reported and stored. To ensure that all these systems are managed effectively, the department has created a Climate Change Monitoring and Evaluation (M&E) unit which also house the National Inventory Unit (NIU). The M&E unit is responsible for coordination and compilation of activities associated with GHG Inventories, National Communications and Biennial Update Reports. During the implementation of the TNC, the M&E unit shall be extended and a proper institutional arrangement network defined. This forms part of the TNC project scope.

Outcome 2.1

102. Information on national GHG inventory and trends provided for the period:2001 - 2011 for inclusion in BUR1 and 2011 – 2012 for inclusion in TNC

Output 2.1.1 and means of verification

103. Activity data (AD) collected and formatted for use in UNFCCC software for IPCC sectors (a) Energy (b) Industrial Production and Other Product Use (c) Agriculture, Forest and Land-Use Change (AFOLU), and (d) Waste

104. Transport related emissions data is receiving a special focus due to the complexity of this sector and its relevance to other environmental areas such as air pollution and environmental degradation. The Department of Environmental Affairs (DEA) together with Department of Transport (DOT) has set-up a

working-group to improve activity data for the transport sector. The working-group will oversee the implementation of a project aimed at data collection for a tier 3 modelling approach for transport emissions. In addition, the DEA is working very closely with the South African Petroleum Industry Association (SAPIA) to determine fuels shares for all demand-side sectors that uses liquid fuels. Parallel to these two processes, DEA has will initiate a study in 2014 to develop emission factors for the road transportation sector. In terms of fuel consumption for civil aviation and domestic navigation and its bunker fuels, the Department is working closely with Airports Company South Africa (ACSA) for Civil Aviation and Transnet for marine navigation and railway sector to develop inventory-ready data so that emissions estimates for this sector can be improved.

105. The following activities are proposed for the achievement of output 2.1.1:

2.1.1.1 Activity data are sourced, collected from various stakeholders for the four IPCC sectors

2.1.1.2 The activity data is worked and converted to the appropriate format for feeding in the UNFCCC software

Output 2.1.2 and means of verification

106. All AD are quality controlled and archived.

107. The following activities are proposed for the achievement of output 2.1.2:

2.1.2.1 All activity data are screened and ascertained for their quality

2.1.2.2 All activity data are entered in a single consolidated database and archived

Output 2.1.3 and means of verification

108. Data gaps identified and processes started and completed for filling these gaps (new surveys, etc.).

109. The following activities are proposed for the achievement of output 2.1.3:

2.1.3.1 The activity data collected is scrutinized for their completeness to estimate emissions or removals and gaps identified

2.1.3.2 Appropriate actions are taken to fill these gaps for generating the estimates

Output 2.1.4 and means of verification

110. All emission factors (EFs) are reviewed for their appropriateness for South Africa before adoption.

111. The following activities are proposed for the achievement of output 2.1.4:

2.1.4.1 Default EFs available in the IPCC Guideline are analysed for their suitability and representativeness of South Africa circumstances

2.1.4.2 Appropriate ones are selected and adopted when compiling the inventory and inappropriate ones submitted to the relevant institution for amendment

Output 2.1.5 and means of verification

112. All inappropriate EFs are modified to suit national circumstances as far as possible

113. The following activities are proposed for the achievement of output 2.1.5:

2.1.5.1 Assessment of the possibility of improving the inappropriate EFs within the timeframe of the project is undertaken

2.1.5.2 Necessary actions taken to amend the improve the EFs as far as possible to suit national circumstances

Output 2.1.6 and means of verification

114. Inventory of emissions compiled for the IPCC sectors listed in 2.1.1

115. The following activities are proposed for the achievement of output 2.1.6:

2.1.6.1 Activity data and EFs are entered in the software for the four IPCC sectors

2.1.6.2 The software is run and compilations of emissions and removals generated

Output 2.1.7 and means of verification

116. All AD, EFs and compilations documented and archived

117. The following activities are proposed for the achievement of output 2.1.7:

2.1.7.1 Information on AD, EFs and methods used for the compilation is properly recorded in the worksheets or in the NIR

2.1.7.2 All documentations are archived in a single database

Outcome 2.2

118. Quality of inventory improved from Tier 1 to Tier 2

Output 2.2.1 and means of verification

119. Computation of emissions over the full time period harmonized with same methodology for a better trend analysis

120. The following activities are proposed for the achievement of output 2.2.1:

2.2.1.1 Previous inventories are recompiled after updating AD and EFs with the same methodology for consistency

2.2.1.2 New trends are produced using the consistent data sets

Output 2.2.2 and means of verification

121. Methodologies for Tier II adopted wherever AD is of the detailed level of disaggregation and documented in an inventory report.

122. The following activities are proposed for the achievement of output 2.2.2:

2.2.2.1 Collected activity data are scrutinized on whether their level of disaggregation meets the standard for adopting Tier II methods for the compilations

2.2.2.2 All information regarding the analysis of activity data and Tier level adopted are recorded in the inventory report

Output 2.2.3 and means of verification

123. Amended improved emission factors have been adopted and documented

124. The following activities are proposed for the achievement of output 2.2.3:
- 2.2.3.1 Wherever EFs have been improved, they are adopted for making estimates in the inventory
 - 2.2.3.2 The process of amending and improving EFs are well written and recorded in the inventory report

Output 2.2.4 and means of verification

125. QA/QC, Uncertainty analysis and Key Category Analysis performed as per Good Practice Guidance and reported
126. The following activities are proposed for the achievement of output 2.2.4:
- 2.2.4.1 QA/QC control are performed on the activity data and calculations, uncertainty allocated to activity data and EFs to give the combined uncertainty and a key category analysis completed after estimates for all IPCC sectors have been made
 - 2.2.4.2 The QA/QC process, uncertainty analysis and key category analysis results are presented in the inventory report

Output 2.2.5 and means of verification

127. Further improvement areas identified and a National Inventory Improvement Plan prepared for action until the next inventory compilation
128. The following activities are proposed for the achievement of output 2.2.5:
- 2.2.5.1 Improvement areas on activity data, EFs and other GHG inventory steps are identified for future action towards further raising the quality of the next inventory
 - 2.2.5.2 A national inventory improvement plan is prepared for implementing actions on the improvements areas identified and reported in the inventory report

Outcome 2.3

129. Institutional arrangements put in place, and institutional capacity enhanced to facilitate the preparation of national GHG inventories on a regular basis.

Output 2.3.1 and means of verification

130. A National Inventory Management System made operational, through the active participation of strengthened sectoral ministries and institutions, and supported by a network of research institutions established.
131. The following activities are proposed for the achievement of output 2.3.1:
- 2.3.1.1 All institutions involved with the compilation of the inventory will benefit from capacity building during the TNC project and this strengthened capacity will enable them to participate more actively in the setting up of the National Inventory Management System
 - 2.3.1.2 A network of research institutions will be created through their participation in the GHG compilation activities

Output 2.3.2 and means of verification

132. QA/QC procedures are established and made functional

133. The following activities are proposed for the achievement of output 2.3.2:

2.3.2.1 Clearly defined steps to be implemented when performing the QC/QA exercise are identified

2.3.2.2 These steps after implementation and functional are documented as established procedures

3. GENERAL DESCRIPTION OF STEPS TAKEN OR ENVISAGED TO IMPLEMENT THE CONVENTION

A. MEASURES TO FACILITATE ADEQUATE ADAPTATION TO CLIMATE CHANGE

134. The department (Department of Environmental Affairs) has developed a project termed the Long-Term Adaptation Scenarios (LTAS) with a 50-year time horizon. The first step of the LTAS is to improve on the local –scale projections of global and regional models working closely with the South African Weather Service (SAWS) and the Climate Systems Analysis Group (CSAG). With regards to the impact analysis approach, the LTAS follows the sectoral analysis approach building on the impact assessment work that has been done after SNC. The 50-year time horizon of the LTAS enables South Africa to assess and plan for long-term impacts of climate change. In this way, South Africa will be in a position to develop climate-resilient society. The work on LTAS will be driven by the TNC process and will form the foundation of the work on climate change adaptation and impacts. The ultimate objective of the LTAS is to inform the policy making process with a view of developing adaptation policies and measures that have a mid-to-long-term perspective.

Outcome 3.1

135. Better understanding of climate change, climate variability and the resulting sea level rise on a finer spatial resolution.

Output 3.1.1 and means of verification

136. Detailed analysis of historical climate data to detect changes at the provincial and community levels and determine current trends

137. The following activities are proposed for the achievement of output 3.1.1:

3.1.1.1 Long-term climatic data available at the provincial and community scales are analysed for the main climate parameters rainfall and temperature

3.1.1.2 Trends are produced to detect climate changes already being experienced at these scales and reported

Output 3.1.2 and means of verification

138. Sea level data are analyzed and the trend available at different locations around the country

139. The following activities are proposed for the achievement of output 3.1.2:

3.1.2.1 Long-term sea level data around the country are analysed

3.1.2.2 Trends of sea level rise being experience, if any, are produced and reported

Outcome 3.2

140. Improved climate change and sea level rise scenarios for improved projections at the spatial and temporal and geographical scales

Output 3.2.1 and means of verification

141. The latest GCMs and RCMs are tested and the best used for projecting scenarios for vulnerability and adaptation assessments.

142. The following activities are proposed for the achievement of output 3.2.1:

3.2.1.1 The latest GCMs and RCMs are calibrated and validated at different scales and the most representative ones identified

3.2.1.2 These GCMs and RCMs are adopted and climate change scenarios are projected

Output 3.2.2 and means of verification

143. Improved climate change and sea level rise scenarios are generated at the local, national and regional levels for different time-steps up to the 2100 time horizon.

144. The following activities are proposed for the achievement of output 3.2.2:

3.2.2.1 Climate change and sea level rise scenarios are generated at different scales

3.2.2.2 The scenarios are projected to different time horizons as appropriate for the V&A assessments up to the year 2100

Output 3.2.3 and means of verification

145. Projected sea level rise are available for impact assessment on the coastal zone and other related activities.

146. The following activity is proposed for the achievement of output 3.2.3:

3.2.3.1 Projected sea level rise is made available to the stakeholders needing them for their assessments

Outcome 3.3

147. Socio-economic scenarios available for use when implementing the Convention

Output 3.3.1 and means of verification

148. Socio-economic scenarios developed for use in the evaluation of adaptation measures

149. The following activities are proposed for the achievement of output 3.3.1:

3.3.1.1 Projections of the socio-economic situation for different time horizons are generated

3.3.1.2 The projections are used to produce socio-economic scenarios and these are provided to the experts assessing V&A

Output 3.3.2 and means of verification

150. Risk assessments made and vulnerability indices developed for most probable climatic risks and extremes

151. The following activities are proposed for the achievement of output 3.3.2:

3.3.2.1 Most probable climatic risks and extremes are assessed on the basis of analysis of historical climate data and climate modelling

3.3.2.2 Risk assessments are made for these climate risks and extremes and vulnerability indices developed

Outcome 3.4

152. Improved vulnerability and adaptation assessments of key socio-economic sectors

Output 3.4.1 and means of verification

153. In-depth impact assessments of climate change on the Agriculture, Water Resources, Forest and other terrestrial Ecosystems, Coastal Zone and Health sectors are completed

154. The following activities are proposed for the achievement of output 3.4.1:

3.4.1.1 Impact assessment on the Agriculture sector

3.4.1.2 Impact assessment on the Water Resources sector

3.4.1.3 Impact assessment on the Forest and other terrestrial Ecosystems

3.1.4.4 Impact assessment on the Coastal Zone

3.1.4.5 Impact assessment on the Health sector

Output 3.4.2 and means of verification

155. Adaptation assessments including the socio-economic aspects for the sectors Agriculture, Water Resources, Forest and other Terrestrial Ecosystems, Coastal Zone and Health are completed.

156. The following activities are proposed for the achievement of output 3.4.2:

3.4.2.1 Assessment and identification of adaptation measures for the Agriculture sector

3.4.2.2 Assessment and identification of adaptation measures for the Water Resources sector

3.4.2.3 Assessment and identification of adaptation measures for Forest and other terrestrial

Ecosystems

3.4.2.4 Assessment and identification of adaptation measures for the Coastal Zone

3.4.2.5 Assessment and identification of adaptation measures for the Health sector

Outcome 3.5

157. More informed decisions based on outputs and enabling mainstreaming of adaptation to climate change into development plans

Output 3.5.1 and means of verification

158. The more reliable vulnerability and adaptation assessments enabled the development of an adaptation strategy based on prioritization of key activities within sectors

159. The following activities are proposed for the achievement of output 3.5.1:

3.5.1.1 Adaptation measures identified are further analysed and prioritized on the basis of their potential for adoption

3.5.1.2 An adaptation strategy is developed to mainstream the prioritized measures in development programmes

Output 3.5.2 and means of verification

160. Spatial vulnerability profiles in GIS format produced at local and national levels based on vulnerability indices for different sectors and sub sectors produced

161. The following activities are proposed for the achievement of output 3.5.2:

3.5.2.1 Vulnerability indices are developed on the basis of the impacts assessments for the key economic sectors

3.5.2.2 These indices are translated into vulnerability profiles and mapped at different scales

Outcome 3.6

162. More appropriate planning for concrete actions to adapt to climate change impacts

Output 3.6.1 and means of verification

163. A robust national adaptation plan with both short term and long term strategies is ready for implementation and taking into special consideration the poorer rural population as well as the economic engines

164. The following activities are proposed for the achievement of output 3.6.1:

3.6.1.1 The sectoral adaptation strategies developed previously are consolidated into a robust plan to guide implementation in the short and longer term

3.6.1.2 Special attention is paid to the more vulnerable rural population and key economic engines when the adaptation plan is developed

Output 3.6.2 and means of verification

165. A series of project briefs prepared and ready for development for funding

166. The following activity is proposed for the achievement of output 3.6.2:

3.6.2.1 Project briefs are developed and reported in the TNC for the most vulnerable sectors

B. MEASURES TO MITIGATE CLIMATE CHANGE

Outcome 4.1

167. Socio-economic scenarios available for use in mitigation assessments

Output 4.1.1 and means of verification

168. New improved baselines created for emitting sectors

169. The following activities are proposed for the achievement of output 4.1.1:

4.1.1.1 Socio-economic projections (demographic growth, GDP growth, welfare of the population, etc.) will be made taking into consideration the national and international context. These will be developed considering sustainable development and a low carbon economy.

4.1.1.2 Baselines will be developed on the basis of the new socio-economic scenarios.

Output 4.1.2 and means of verification

170. Emissions projected to the 2050 horizon for the business as usual and new socio-economic scenarios

171. The following activities are proposed for the achievement of output 4.1.2:

4.1.2.1 Emissions will be generated for different time horizons based on the present carbon intensity.

4.1.2.2 Projections will be made with the new socio-economic scenarios coupled with the low carbon development programme.

Outcome 4.2

172. Improved up to date mitigation assessments completed for key emitting sectors

Output 4.2.1 and means of verification

173. Mitigation assessments completed for the Energy, Industrial Processes and Other Product Use, AFOLU and Waste sectors, including financial needs for implementation

174. The following activities are proposed for the achievement of output 4.2.1:

4.2.1.1 The mitigation measures obtained for the four IPCC sectors, and based on the reductions obtained from the projections under business as usual and new socio-economic scenarios will be further screened for their penetration and adoption potential. This exercise will consider various parameters such as technologies available, enabling environment, capabilities of government and the population among others.

4.2.1.2 The technologies will be prioritized and the financial implications for the government and population estimated while considering other requirements also.

Outcome 4.3

175. Carbon sequestration potential evaluated for the country

Output 4.3.1 and means of verification

176. The sequestration potential of the country, with emphasis in the AFOLU sector and through Carbon Capture and Storage in the energy sector is determined

177. The following activities are proposed for the achievement of output 4.3.1:

4.3.1.1 The AFOLU sector will be deeply analysed to evaluate the carbon sequestration potential of this sector.

4.3.1.2 Carbon Capture and Storage potential of the country will be estimated as energy production will most probably remain carbon intensive in the short to medium term.

Outcome 4.4

178. Mitigation measures mainstreamed in national and local development plans and strategies

Output 4.4.1 and means of verification

179. A strategy for implementing the most prominent mitigation actions worked out in consultation with a wide group of stakeholders, including the private sector. A National mitigation plan is produced for guiding the way forward

180. The following activities are proposed for the achievement of output 4.4.1:

4.4.1.1 All strategic stakeholders will be consulted to work out strategies for integrating the mitigation measures identified and having the highest potential for adoption. The stakeholders will comprise government institutions, the private sector and the communities as appropriate within the strategies.

4.4.1.2 The strategies developed in consultation with the stakeholders will be used to develop a plan of action for implementing them within the national development priorities.

Outcome 4.5

181. Effective and coordinated strategy in place for implementation of concrete GHG mitigation activities consistent with national development priorities

Output 4.5.1 and means of verification

182. A series of GHG mitigation project briefs prepared and ready for further development into full project proposals for funding

183. The following activities are proposed for the achievement of output 4.5.1:

4.5.1.1 The institutional set-up and arrangements for implementing the mitigation activities will be worked out.

4.5.1.2 Project briefs will be prepared inclusive of financial and other requirements for consideration by the international community for funding.

4. OTHER INFORMATION RELEVANT TO THE ACHIEVEMENT OF THE OBJECTIVE OF THE CONVENTION AND FACILITATING THE FORMULATION AND IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT PROGRAMMES

A. MAINSTREAMING AND DEVELOPMENT AND TRANSFER OF TECHNOLOGY

Outcome 5.1

184. Climate change mainstreaming exercise undertaken

Output 5.1.1 and means of verification

185. Information provided on mainstreaming of climate change into social, economic and environmental policies and actions.

186. The following activities are proposed for the achievement of output 5.1.1:

5.1.1.1 The integration of climate change concerns into the social, economic and environmental policies and actions will be undertaken.

Outcome 5.2

187. Improved assessment of technology needs for implementing the Convention

188. The methodology to be used for the TNA will be that of the updated UNDP/GEF/UNFCCC handbook *Conducting Technology Needs Assessments for Climate Change*. The sectors targeted will be those offering the highest mitigation potential (energy industries, transport and AFOLU) based on the latest GHG inventory results and the sectors most vulnerable to climate change (Agriculture, Forest, health, water resources and infrastructure).

Output 5.2.1 and means of verification

189. Technology Needs Assessment consistent with national strategies and plans to implement the Convention;

190. The following activities are proposed for the achievement of output 5.2.1:

5.2.1.1 The needs for environmentally sound technologies for implementing the Convention, notably adaptation and mitigation will be undertaken.

5.2.1.2 The technologies will be screened for their consistencies with the national development plans and strategies and prioritized.

Output 5.2.2 and means of verification

191. In-depth analysis and prioritization of technologies based on costs, adoption rates and other factors;

192. The following activity is proposed for the achievement of output 5.2.2:
5.2.2.1 A second phase of prioritization will be made on the basis of an in-depth analysis covering costs, adoption rates and other factors relating to government institutions, the private sector and the communities as appropriate.

Output 5.2.3 and means of verification

193. A Technology Action Plan is prepared, the objective being successful technology transfer for both mitigation and adaptation;

194. The following activities are proposed for the achievement of output 5.2.3:

5.2.3.1 Stakeholders to be potentially involved with the successful transfer of the prioritized technologies will be consulted for preparing a technology action plan.

5.2.3.2 A technology action plan will be prepared and made available to all concerned along with the institutional set-up to implement this plan.

B. RESEARCH AND SYSTEMATIC OBSERVATIONS

Outcome 5.3

195. Enhanced research and systematic observation systems, thus enabling the country to better meet its commitments

Output 5.3.1 and means of verification

196. Research and systematic observation needs identified and prioritized for implementation

197. The following activities are proposed for the achievement of output 5.3.1:

5.3.1.1 A stocktaking exercise on research being undertaken in relation to climate change (climate change science, vulnerability and adaptation, Emission factors and mitigation) will be undertaken, the gaps and proposals to fill these identified.

5.3.1.2 The systematic observation system will be scrutinized, gaps identified and proposals for filling these made.

Output 5.3.2 and means of verification

198. Projects on climate research to improve assessment of impacts and adaptation

199. The following activity is proposed for the achievement of output 5.3.2:

5.3.2.1 Project proposals for research on climate change science to meet the country needs for the adaptation and mitigation studies will be prepared.

Output 5.3.3 and means of verification

200. Research activities to develop country specific emission factors for improving quality of inventory

201. The following activity is proposed for the achievement of output 5.3.3:

5.3.3.1 EFs would have been analysed for their appropriateness and some amended to suit national circumstances. Proposals will be developed and presented for the research needs for improving EFs identified and included in the GHG inventory improvement plan.

Output 5.3.4 and means of verification

202. South Africa has collaborated in regional and international research and systematic observation networks for combating climate change

203. The following activities are proposed for the achievement of output 5.3.4:

5.3.4.1 South Africa will continue to collaborate with the neighbouring countries and those in southern Africa for research and systematic observation networks for combating climate change such as within the Drought monitoring Centre.

5.3.4.2 South Africa will continue to collaborate with the international organizations for research and systematic observation networks for combating climate change such as World Meteorological Organization and IPCC.

C. EDUCATION, TRAINING AND PUBLIC AWARENESS

Outcome 5.4

204. Better understanding of Education, Training and Public Awareness needs

Output 5.4.1 and means of verification

205. Detailed plan for inclusion of climate change in formal educational curricula and vocational training prepared;

206. The following activities are proposed for the achievement of output 5.4.1:

5.4.1.1 An evaluation of the extent to which climate change has been included in the formal education system and vocational training will be undertaken. Gaps and needs will be derived from this exercise.

5.4.1.2 A plan will be prepared in consultation with all concerned stakeholders for implementing the actions and activities identified within the evaluation exercise.

Output 5.4.2 and means of verification

207. Level of awareness of different segments of the population evaluated and remedial actions identified to inform and educate them and to influence their behavioural choices

208. The following activities are proposed for the achievement of output 5.4.2:

5.4.2.1 Surveys will be undertaken to assess the level of awareness of the different segments of the population with special attention to the communities.

5.4.2.2 Remedial actions to inform and educate the different segments of the population and to influence their behavioural choices will be identified after consultations with appropriate stakeholders.

Output 5.4.3 and means of verification

209. An action plan to prepare awareness materials for effective sensitization of the population ready for action;

210. The following activities are proposed for the achievement of output 5.4.3:

5.4.3.1 The awareness materials needed for the effective sensitization of the population will be determined in consultation with those who will undertake the awareness campaigns.

5.4.3.2 In consultation with the appropriate stakeholders, an action plan for effective sensitization will be prepared and the institutional set-up for implementing this plan developed.

D. CAPACITY BUILDING

Outcome 5.5

211. Capacity Building needs for reporting to the UNFCCC and implement the Convention clearly identified

Output 5.5.1 and means of verification

212. An exhaustive list of areas requiring capacity building is produced;

213. The following activities are proposed for the achievement of output 5.5.1:

5.5.1.1 Capacity building needs will be identified during the exercises undertaken on the different thematic areas for reporting to the UNFCCC. 5.5.1.2

Capacity building needs for implementing the Convention will be identified when the different action plans and strategies are developed for mainstreaming adaptation and mitigation within the national development priorities.

Output 5.5.2 and means of verification

214. A plan of action is ready for implementation and prioritizing capacity building in line with most urgent needs.

215. The following activities are proposed for the achievement of output 5.5.2:

5.5.2.1 A plan of action and strategy for implementing capacity building of the appropriate stakeholders will be developed.

5.5.2.2 Capacity building needs will be prioritized and the institutional set-up and strategy for implementing the most urgent ones developed.

E. INFORMATION SHARING AND NETWORKING

Outcome 5.6

216. Efforts to promote information sharing and networking

Output 5.6.1 and means of verification

217. Description of activities for better information sharing and networking

218. The following activity is proposed for the achievement of output 5.6.1

5.6.1.1 Identification of actions to be undertaken for promoting information sharing and networking

F. CONSTRAINTS AND GAPS; RELATED FINANCIAL, TECHNICAL AND CAPACITY NEEDS

Outcome 5.7

219. Constraints and Gaps and related financial, technical and capacity needs, and activities for overcoming gaps and constraints for national communications, and climate change measures and programs

Output 5.7.1 and means of verification

- 220. Report on constraints, gaps and needs and a plan on how to overcome these
- 221. The following activity is proposed for the achievement of output 5.7.1
 - 5.7.1.1 Constraints and Gaps and related financial, technical and capacity needs will be identified and measures to overcome these worked out and proposed

Outcome 5.8

- 222. Financial resources and technical support for preparing national communications provided by themselves and the GEF

Output 5.8.1 and means of verification

- 223. Description of support received from the GEF and national contributions for preparing the TNC
- 224. The following activity is proposed for the achievement of output 5.8.1
 - 5.8.1.1 Financial resources and technical support for preparing national communications provided by the country and the GEF will be described

Outcome 5.9

- 225. Financial resources and technical support provided by various sources

Output 5.9.1 and means of verification

- 226. Report on support received from other partners
- 227. The following activity is proposed for the achievement of output 5.9.1
 - 5.9.1.1 Financial resources and technical support tapped from various sources will be screened and reported

Outcome 5.10

- 228. List of projects proposed for financing or in preparation for arranging technical/financial support

Output 5.10.1 and means of verification

- 229. A potential list of projects requiring financial/technical support is presented
- 230. The following activity is proposed for the achievement of output 5.10.1
 - 5.10.1.1 A list of project proposals will be prepared

Outcome 5.11

- 231. Opportunities, barriers for implementation of adaptation measures, including pilot and/or demonstration projects

Output 5.11.1 and means of verification

- 232. Description of opportunities and barriers for implementing adaptation, including pilot and demonstration projects is provided
- 233. The following activity is proposed for the achievement of output 5.11.1

5.11.1.1 An exercise will be undertaken to identify and present opportunities, barriers for implementation of adaptation measures, including pilot and/or demonstration projects

Outcome 5.12

234. Country-specific technology needs and assistance received from developed country Parties and the GEF, and how assistance was utilized

Output 5.12.1 and means of verification

235. Report on assistance received from developed country Parties and the GEF on technology needs and transfer

236. The following activity is proposed for the achievement of output 5.12.1

5.12.1 An assessment of country-specific technology needs and assistance received from developed country Parties and the GEF, and how assistance was utilized will be undertaken and reported

5. BIENNIAL UPDATE REPORT TO THE UNFCCC

Outcome 6.1

237. Biennial Update Report to the UNFCCC prepared for the period 2001 to 2011 and approved by Government

Output 6.1.1 and means of verification

238. Biennial Update Report to the UNFCCC including the following:

- National circumstances
- National inventory for period 2001 to 2011 of energy activities, industrial processes, agricultural activities, land use change and forestry activities (LUCF), and waste sector activities
- Information on climate change mitigation actions
- Constraints and gaps, and related financial, technical and capacity needs
- Information on the level of support received to enable the preparation and submission of BUR
- Domestic measurement, reporting and verification
- Preparation of BURI report to the UNFCCC

239. The following activities are proposed for the achievement of output 6.1.1:

6.1.1.1 The national circumstance will be reviewed in relation to NUR reporting and a description made.

6.1.1.2 Estimates of emissions and removals of GHGs for the period 2001 to 2010 of energy activities, industrial processes, agricultural activities, land use change and forestry activities (LUCF), and waste sector activities will be compiled.

6.1.1.3 Steps being taken and envisaged for mitigating climate change will be analyzed and information thereon provided.

6.1.1.4 An evaluation of constraints and gaps, and related financial, technical and capacity needs will be made and a description included in the report.

6.1.1.5 Information will be provided on the level of support received to enable the preparation and submission of the BUR1.

6.1.1.6 Progress on the development of the domestic measurement, reporting and verification system will be described.

6.1.1.7 Drafting, review and approval by stakeholders at national level

6. DRAFTING, DOCUMENTATION AND SUBMISSION OF NATIONAL COMMUNICATION REPORT TO UNFCCC

Outcome 7.1

240. Preparation of GHG inventory report

Output 7.1.1 and means of verification

241. The GHG inventory report is prepared in electronic and hard copies for wide circulation

242. The following activities are proposed for the achievement of output 7.1.1:

7.1.1.1 A stand-alone national GHG inventory report will be prepared in electronic format.

7.1.1.2 Hard copies of the electronic copy will be made in sufficient numbers for wide circulation to the appropriate stakeholders.

Outcome 7.2

243. Preparation of TNC

Output 7.2.1 and means of verification

244. The TNC report is prepared in electronic and hard copies for wide circulation

245. The following activities are proposed for the achievement of output 7.2.1:

7.2.1.1 The TNC report will be prepared in electronic format.

7.2.1.2 The TNC will be printed in sufficient numbers in hard copies for wide circulation to the international community and appropriate stakeholders

Outcome 7.3

246. Synthesis and Translation of GHG Inventory report and TNC

Output 7.3.1 and means of verification

247. The GHG inventory and TNC are summarized in a format digestible by all segments of the population for buying in their contribution

248. The following activities are proposed for the achievement of output 7.3.1:

7.3.1.1 The GHG report will be synthesized and translated in the main local languages to make it accessible to all segments of the population for buying in their contribution and action

7.3.1.2 The TNC report will be synthesized and translated in the main local languages to make it accessible to all segments of the population for buying in their contribution and action

Output 7.3.2 and means of verification

249. Awareness creation materials covering GHG inventories and TNC prepared and translated to national languages for sensitization /outreach activities

250. The following activities are proposed for the achievement of output 7.3.2:

7.3.2.1 Awareness creation materials on the GHG inventory and TNC will be prepared for sensitization and outreach activities.

7.3.2.2 The awareness creation materials prepared in English on the GHG inventory and TNC will be translated to national languages as required for more effectiveness.

Table 2: Proposed activities and detailed work plan for Third National Communication and First Biennial Update Report of South Africa (July 2014 – June, 2017)

MONTHS		ACTIVITY COMPONENT										
		I Nat. Circum.	II GHG Invent.	III Adapt	IV Mit. Analysis	V Other Re Info	VI Const & Gaps	VII Publication	VIII Proj Mngt	IX M, R & E	X BUR	
2014	Jul	X							X	X	X	
	Aug	X	X						X	X	X	
	Sept	X	X	X			X		X	X	X	
	Oct	X	X	X			X		X	X	X	
2015	Nov	X	X	X			X		X	X	X	
	Dec	X	X	X			X		X	X	X	
	Jan	X	X	X	X	X	X	X	X	X	X	
	Feb	X	X	X	X	X	X	X	X	X	X	
2016	Mar	X	X	X	X	X	X	X	X	X	X	
	Apr	X	X	X	X	X	X	X	X	X	X	
	May	X	X	X	X	X	X	X	X	X	X	
	Jun	X	X	X	X	X	X	X	X	X	X	
	Jul	X	X	X	X	X	X	X	X	X		
	Aug	X	X	X	X	X	X	X	X	X		
	Sep	X	X	X	X	X	X	X	X	X		
	Oct	X	X	X	X	X	X	X	X	X		
	Nov	X	X	X	X	X	X	X	X	X		
	Dec	X	X	X	X	X	X	X	X	X		
	2017	Jan	X	X	X	X	X	X	X	X	X	
		Feb	X	X	X	X	X	X	X	X	X	
Mar		X	X	X	X	X	X	X	X	X		
Apr		X	X	X	X	X	X	X	X	X		
May		X	X	X	X	X	X	X	X	X		
Jun		X	X	X	X	X	X	X	X	X		
Jul		X	X	X	X	X	X	X	X	X		
Aug		X	X	X	X	X	X	X	X	X		
Sep		X		X	X	X	X	X	X	X		
Oct				X	X	X	X	X	X	X		
Nov				X	X	X	X	X	X	X		
Dec				X	X	X	X	X	X	X		
2017	Jan			X	X	X	X	X	X	X		
	Feb			X	X	X	X	X	X	X		
	Mar			X	X	X	X	X	X	X		
	Apr								X	X		
	May								X	X		
	June								X	X		

Table 3: Matrix of Activities per Component and Indicative Budget for the Preparation of Third National Communication and First Biennial Update Report of South: (July 2014 – June, 2017)

ACTIVITIES PER COMPONENT	(US\$) 2014	(US\$) 2015	(US\$) 2016	(US\$) 2017	(US\$) Total
I. National Circumstances and Institutional Arrangements	23,000	10,000	2,000	0	35,000
1. Description of development priorities, objectives and circumstances, etc.	5,000	4000	2000	0	11,000
2. Description of the geography, climate, environmental and socio-economic profiles of the country	8,000	2000		0	10,000
3. Description of existing institutional arrangements for preparing national communications on continual basis	5,000	4000	0	0	9,000
4. Description of the national institutional framework for the effective implementation of measures to meet the objectives of the Convention	5,000	0	0	0	5,000
II. National Greenhouse Gas Inventory	260,000	460,000	100,000	0	820,000
1. Estimation of national GHG emissions and removals for period 2011 to 2012 with improved EFs to suit National circumstances	180,000	430,000	100000	0	710,000
2. Quality of inventory improved from Tier 1 to Tier 2, information on QC/QA and the level of uncertainty associated with the inventory data	60,000	30,000		0	90,000
3. Arrangements for the collection and archiving of data to facilitate the preparation of GHG inventory on a continuous basis	20,000	0	0	0	20,000
General Description of Steps (Total)	380,000	660,000	370,000	25,000	1,435,000
III Measures to facilitate adequate adaptation to climate change (Sub-total)	330,000	310,000	140,000	25,000	805,000
1. Better understanding of climate change and projected climate change and sea level rise scenarios for V&A assessments	120,000	40,000	30000	0	190,000
2. Socio-economic scenarios produced for adoption in the V&A assessment	0	20,000	10,000	0	30,000
3. Information on vulnerability to the adverse effects of climate change and on adaptation measures being taken and envisaged	210,000	250,000	50,000	0	510,000

ACTIVITIES PER COMPONENT	(US\$) 2014	(US\$) 2015	(US\$) 2016	(US\$) 2017	(US\$) Total
4. Development of policy frameworks, national adaptation programmes, plans and policies for mainstreaming and implementing adaptation strategies	0	0	50,000	25,000	75,000
IV. Measures to mitigate climate change (Sub-total)	50,000	350,000	230,000	0	630,000
1. Information on mitigation assessments of the key emitting sectors and socio-economic scenario development	50,000	300,000	100,000		450,000
2. Information on the carbon sequestration potential of the country		50,000	60,000		110,000
3. Description of steps taken for formulating programs containing measures to mitigate greenhouse gas emissions consistent with development priorities			70,000		70,000
V. Other relevant information (Technology Transfer; Research and Systematic Observation; Education, Training and Public Awareness; Capacity Building, etc.)	20,000	199,000	146,000	30,000	395,000
Climate Change mainstreaming					
1. Information on integrating climate change considerations into social, economic and environmental policies and actions	5,000	10,000	20,000	5,000	40,000
Development and transfer of technologies					
2. Information on transfer of, and access to ESTs and know-how, development of endogenous capacities; measures to enhance enabling environment for transfer of technologies	5,000	80,000	35,000	5,000	125,000
Research and systematic observation					
3. Information on Climate change research and systematic observation	5,000	20,000	15,000	5,000	45,000
Education, training and public awareness					
4. Information on CC education, training and public awareness	5,000	40,000	30,000	5,000	80,000
Capacity Building					
5. Information on Capacity Building Activities, Options and Priorities	0	15,000	15,000	5,000	35,000
Information sharing and Networking					
6. Information on efforts to promote information sharing and networking	0	10,000	10,000	0	20,000

ACTIVITIES PER COMPONENT	(US\$) 2014	(US\$) 2015	(US\$) 2016	(US\$) 2017	(US\$) Total
Constraints and Gaps; related Financial, Technical and Capacity Needs	0	24,000	21,000	5,000	50,000
7a. Constraints and Gaps and related financial, technical and capacity needs, and activities for overcoming gaps and constraints for national communications, and climate change measures and programs	0	10,000	10,000	5,000	0
7b. Financial resources and technical support for preparing national communications provided by themselves and the GEF	0	1000	3,000	0	4,000
7c. Financial resources and technical support provided by various sources		1000	3,000	0	4,000
7d. List of projects proposed for financing or in preparation for arranging technical/financial support			3,000		3,000
7e. Opportunities, barriers for implementation of adaptation measures, including pilot and/or demonstration projects		10,000			10,000
7f. Country-specific technology needs and assistance received from developed country Parties and the GEF, and how assistance was utilized		2000	2,000		4,000
VI. Biennial Update Report to the UNFCCC	103,000	157,350	0	0	260,350
1. National circumstances	3,000	5350	0	0	8,350
2. National inventory for period 2001 to 2010 of energy activities, industrial processes, agricultural activities, land use change and forestry activities (LUCF), and waste sector activities; Major costs associated with supporting the project on development of land cover maps for three time steps (1990, 2000, 2013). These maps are going to be used to develop a land use change matrix.	50,000	70000	0	0	120,000
3. Information on climate change mitigation actions;	20000	50,000			70,000
4. Constraints and gaps, and related financial, technical and capacity needs;	8,000	2000	0	0	10,000
5. Information on the level of support received to enable the preparation and submission of BUR;	2,000		0	0	2,000
6. Domestic measurement reporting and verification.	20,000	30000	0	0	50,000

ACTIVITIES PER COMPONENT	(US\$) 2014	(US\$) 2015	(US\$) 2016	(US\$) 2017	(US\$) Total
VII. Drafting, documentation and submission of Third National Communication report to UNFCCC	0	50,000	50,000	98,500	198,500
1. Printing of BUR and preparation of e-copies of BUR for circulation to stakeholders	0	50,000	0	0	50,000
2. Printing of TNC and preparation of e-copies of TNC and NIR for circulation to stakeholders; Printing of translated summaries of NIR and TNC for circulation to stakeholders	0	0	50,000	98,500	148,500
VIII. Project Management	37,000	61,500	61,300	31,000	190,800
1. National Project Coordinator	16,900	33,800	33,800	16,900	101,400
2. Project Administrative Assistant	4,800	9,600	9,600	4,800	28,800
3. Accountant (Part time)	3,000	6,000	6,000	3,000	18,000
4. Independent Audit of the Project	1,500	3,000	3,000	1,500	9,000
5. Communication Costs (payment of internet, telephone, courier services) of PMT	800	1,600	1,400	800	4,600
6. Staff Travel	3,000	6,000	6,000	3,000	18,000
7. Equip the project office (including 2 laptops, 1 printer)	7,000	1,500	1,500	1,000	11,000
IX. Sub Contracts (Commercial purposes)	35,000	45,000	90,000	30,000	200,000
1. Preparation of public awareness materials, pamphlets, flyers, etc.	10,000	20,000	50,000	20,000	100,000
2. Preparation of land cover and risk profile maps	25,000	25,000	40,000	10,000	100,000
X. Training Component	100,000	120,000	120,000	32,000	372,000
Group training (field trips, workshops, seminars, etc.) on thematic areas of National Communications and Initiation workshop for TNC and BUR1	100,000	120,000	120,000	32,000	372,000
XI. Meetings / conferences	4,000	10,000	4,000	6,000	24,000
Participation in regional/global meetings (BUR, V&A, Mitigation, modelling, etc.), presentation of BUR1 and TNC at COP or SB meetings	4,000	10,000	4,000	6,000	24,000
XII. Monitoring, Reporting and Evaluation	0	31,000	45,000	0	76,000
Total	962,000	1,803,850	988,300	252,500	4,006,650

The UNEP budget codes format corresponding to the activities outlined in Table 1 is appended as Annex 1

IV: FORMAT FOR THE THIRD NATIONAL COMMUNICATION AND INITIAL BIENNIAL UPDATE REPORT OF SOUTH AFRICA TO COP OF THE UNFCCC

1. The TNC of South Africa will be submitted as a single document in the following format:

Executive Summary (not more than 10 pages)	
Chapter 1	Introduction
Chapter 2	National Circumstances
Chapter 3	GHG Inventory
Chapter 4	Vulnerability and Adaptation Assessment (including list of projects for bilateral and multilateral funding)
Chapter 5	Greenhouse Gas Mitigation Assessment (including list of projects for bilateral and multilateral funding pursuant to Article 12.4 of the UNFCCC)
Chapter 6	Integration of climate change considerations into social, economic and environmental policies and actions
Chapter 7	Technology Transfer and Development
Chapter 8	Research and Systematic Observation
Chapter 9	Education, Training and Public Awareness
Chapter 10	Capacity Building Activities, Options and Priorities
Chapter 11	Information sharing and networking
Chapter 12	Constraints and Gaps; related Financial, Technical and Capacity Needs

2. The BUR1 of South Africa will be submitted as a single document in the following format:

Executive Summary (not more than 10 pages)	
Chapter 1	Introduction
Chapter 2	National Circumstances
Chapter 3	GHG Inventory
Chapter 4	Greenhouse Gas Mitigation Assessment
Chapter 5	Constraints and gaps, and related financial, technical and capacity needs
Chapter 6	Support received to enable the preparation and submission of BUR
Chapter 7	Domestic measurement, reporting and verification

Table 4: Project Risk Log (Risk Analysis Table)

Risk Description	Category	Impact Severity	Likelihood	Risk Management Strategy and Safeguards	By when/by whom
	(Technical/ Institutional/ Legal)	(High, Medium, Low)	(High, Medium, Low)		
National Circumstances: Latest Information needed may not be available on time	Technical	Low	Low	Close coordination with data providing stakeholders for provision of data and information;	Mid-2014 By PC
GHG Inventory: Data sets may be incomplete for some sectors and years	Technical	Medium	Medium	Sustained efforts to source and collect missing data; Data can be generated using scientific methods and expert judgment for completing the data sets	End-2014 By PC and Inventory team leaders
GHG Inventory: Activity data may not be at the level of disaggregation required for all source categories	Technical	Medium	Medium	New surveys and other procedures designed and implemented to meet the level of disaggregation required; Data can be obtained from international databases or generated as appropriate	End-2014 By PC and Inventory team leaders
GHG Inventory: Some stakeholders may find it difficult to devote sufficient personnel and time for GHG inventory preparation on a regular basis	Institutional	Low	Medium	Close follow-up of performance and timeliness of national (government) experts in meeting the objectives; Consultants can be hired to replace this personnel	End-2014 By PC and GHG inventory team leader
V&A: Data gaps in the meteorological records and insufficient coverage of some areas of the country	Technical	Low	Medium	Rapid screening of existing datasets to identify gaps in the records; Generate data using models and other scientific methods	Mid 2015 By PC and V&A climate change specialist
V&A: Insufficient capacity and baseline data to generate the scenarios and projections at fine	Technical	Medium	Medium	Proper planning of capacity building and rapid screening of available baseline data for remedial action; Hire consultants and	Mid 2015 By PC and V&A climate change

Risk Description	Category	Impact Severity	Likelihood	Risk Management Strategy and Safeguards	By when/by whom
	(Technical/ Institutional/ Legal)	(High, Medium, Low)	(High, Medium, Low)		
spatial, temporal and geographical scales				generate baseline data using models and other scientific methods	specialist
V&A: Data and information used may introduce high uncertainty in the socio-economic scenarios developed	Technical	Medium	Medium	Best reliable datasets used after careful assessment by appropriate experts; Compare datasets with international datasets and hire the best consultants to review the scenarios developed	End-2014 By PC and V&A team leader
V&A: Disaggregated data may be lacking and methodologies not always appropriate for conducting the in-depth studies	Technical	Medium	Medium	Data that are lacking can be generated through new surveys and other methods or those from the region or the international institution adopted; Existing methodologies will be screened and the most appropriate used	End-2014 By PC and V&A team leader
V&A: Some key stakeholders may not prioritise climate change adaptation measures as an important component of their development plans	Institutional	Medium	Low	Stakeholders will be widely consulted and their commitment secured during the exercise; Adaptation is already integrated in development plans and it will further strengthened; Government can enact the necessary legislations	Mid-2015 By PC and V&A team leader
V&A: The process to manage various interests in the development of the national adaptation plan may prove to be a challenge	Institutional	Medium	Low	High calibre team leader and project coordinator will be contracted to manage the process under close supervision of the PMU and steering committee; Government is fully committed to complete all activities earmarked in the	Mid-2016 By PMU and PSC

Risk Description	Category	Impact Severity	Likelihood	Risk Management Strategy and Safeguards	By when/by whom
	(Technical/ Institutional/ Legal)	(High, Medium, Low)	(High, Medium, Low)		
				project	
Mitigation: Uncertainties in the international environment may impact on the socio-economic scenarios produced	Technical	High	Medium	The evolution and forecasts in the international context will be closely followed and integrated in the socio-economic scenarios; Adjustments will be brought as far as possible to reflect the situation closely	Mid-2016 By socio-economist and PC
Mitigation: Confidentiality of data may compromise transparency and access to data, It may be difficult to validate and verify projection assumptions from 2030 onwards	Legal	Medium	Low	Efforts will be invested to secure needed data in a transparent manner; The legislations can be resorted to and modelling applied to generate any missing data	End-2016 By PMU and PSC
Mitigation: Quality of information and data for accurate carbon sequestration and carbon capture and storage potentials may influence confidence levels	Technical	Medium	Medium	Data will be quality controlled before adoption and uncertainties assessed and documented	Mid-2016 By PC and mitigation team leader
Mitigation: Some key stakeholders may not prioritize climate change mitigation as an important component of their development plans	Institutional	Medium	Low	Stakeholders will be widely consulted and their commitment secured during the exercise; Adaptation is already integrated in development plans and it will further strengthened; Government can enact the necessary legislations	Mid-2016 By PC and V&A team leader

Risk Description	Category	Impact Severity	Likelihood	Risk Management Strategy and Safeguards	By when/by whom
	(Technical/ Institutional/ Legal)	(High, Medium, Low)	(High, Medium, Low)		
Other information - TNA: Available data and methods may not be fully suitable to meet the national circumstances of the country	Technical	Low	Medium	Available methods will be screened based on available data for choosing the most appropriate	Mid-2016 By TNA group of experts and PC
Other information - RSO: All improvements and needs may not be captured in light of uncertainties still existing on climate change science	Technical	Low	Medium	Research and Observation are well organized in the country and there will be a wide consultation of stakeholders	Mid-2016 By RSO group of experts and PC
Other information - ETPA: Some stakeholders may not collaborate in the exercise due to lack of personnel and time	Institutional	Low	Low	Special efforts will be invested to involve key stakeholders; Government is committed to the exercise and can intervene if necessary	Mid-2016 By PC and PMU
Other information - CB: Needs for implementing the Convention may be difficult to identify given the uncertainties linked with the international context	Technical	Low	Medium	The evolution and forecasts in the international context will be closely followed and taken into consideration during the exercise; Adjustments can be made to adjust to this situation	Mid-2016 By thematic team leaders and PC
BUR: Some stakeholders may not collaborate as planned due to lack of resources	Institutional	Low	Low	The bottom-up approach coupled with the transparent manner and wide stakeholder involvement this project will resolve this problem; Government is fully committed and can intervene if necessary	End-2014 By PC, PMU and PSC

LIST OF ANNEXES

1. The following annexes form part of this Third National Communication and First Biennial Update Report Project document.

Annex 1: Detailed Budget in UNEP Format

Annex 1a: Detailed Co-financing Budget in UNEP Format

Annex 2: Format for Cash Advance Request with its Appendix 1 to Annex 2 providing additional information for the requested cash advance funding.

Annex 3: Format for Quarterly Expenditure Statement with its Appendix 1 to Annex 3 providing explanatory notes on the reported expenditures.

Annex 4: Quarterly Progress Report Format with its Appendix 1 to Annex 4 for inventory of outputs/services.

Annex 5: Format for Inventory of Non Expendable Equipment

Annex 6: Format for Terminal Report with its Appendix 1 to Annex 6 for the inventory of outputs/services.

Annex 7: Terms of Reference

ANNEXES

ANNEX 1: DETAILED BUDGET IN UNEP FORMAT

South Africa: Preparation for the Third National Communication and First Biennial Update Report under United Nations Framework Convention on Climate Change						
GFL/5070-pppp-nnnn						
Budget line	Activities	2014 (US\$)	2015 (US\$)	2016 (US\$)	2017 (US\$)	TOTAL (US\$)
10	PROJECT PERSONEL COMPONENT					
1100	Project Personnel					
1101	National Project Coordinator	16,900	33,800	33,800	16,900	101,400
<i>1199</i>	<i>Sub Total</i>	<i>16,900</i>	<i>33,800</i>	<i>33,800</i>	<i>16,900</i>	<i>101,400</i>
1200	Consultant					
<i>1201</i>	<i>National Circumstances</i>	<i>26,000</i>	<i>15,350</i>	<i>2,000</i>	<i>0</i>	<i>43,350</i>
	I. Updated National Circumstances of South Africa included in the Third National Communications	23,000	10,000	2,000	0	35,000
	II. National circumstances of BUR	3,000	5350	0	0	8,350
1202	GHG Inventories	310,000	530,000	100,000	0	940,000
	I. Completed National Greenhouse Gas Inventories for South Africa using the 2006 IPCC Guidelines, 2000 GPG and any other supporting tools for the TNC	260,000	460,000	100000	0	820,000
	National inventory for period 2001 to 2011 of energy activities, industrial processes, agricultural activities, land use change and forestry activities (LUCF), and waste sector activities; Major costs associated with supporting the project on development of land cover maps for three time steps (1990, 2000, 2013). These maps are going to be used to develop a land use change matrix.	50,000	70000	0	0	120,000
<i>1203</i>	<i>Measures to facilitate adequate adaptation to climate change in TNC</i>	<i>330,000</i>	<i>310,000</i>	<i>140,000</i>	<i>25000</i>	<i>805,000</i>
<i>1204</i>	<i>Mitigation of climate change</i>	<i>70,000</i>	<i>400,000</i>	<i>230,000</i>	<i>0</i>	<i>700,000</i>
	I. Measures to mitigate climate change in TNC	50,000	350,000	230,000	0	630,000
	II. Information on climate change mitigation actions	20,000	50000	0	0	70,000
1205	Other relevant information	50,000	231,000	146,000	30,000	457,000
	I. Integrate climate change considerations into social, economic and environmental policies and actions	5,000	10,000	20,000	5000	40,000
	II. Development and transfer of Technologies	5,000	80,000	35,000	5000	125,000
	III. Research and Systematic Observation	5,000	20,000	15,000	5000	45,000
	IV. Education, Training and Public Awareness	5,000	40,000	30,000	5000	80,000
	V. Capacity Building	0	15,000	15,000	5000	35,000
	VI. Information Sharing and Networking	0	10,000	10,000	0	20,000

South Africa: Preparation for the Third National Communication and First Biennial Update Report under United Nations Framework Convention on Climate Change						
GFL/5070-pppp-nnnn						
Budget line	Activities	2014 (US\$)	2015 (US\$)	2016 (US\$)	2017 (US\$)	TOTAL (US\$)
	VII. Constraints, Gaps and related financial, technical and capacity needs for TNC	0	24,000	21,000	5000	50,000
	VIII. Constraints and gaps, and related financial, technical and capacity needs for BUR	8,000	2000	0	0	10,000
1206	I. Information on the level of support received to enable the preparation and submission of BUR	2,000		0	0	2,000
	II. Domestic measurement, reporting and verification for BUR	20,000	30000	0	0	50,000
1299	Sub Total	786,000	1,486,350	618,000	55,000	2,945,350
1300	Administrative Support					
1301	Project Administration Assistant	4,800	9,600	9,600	4800	28,800
1302	Accountant (part time)	3,000	6,000	6,000	3000	18,000
1399	Sub Total	7,800	15,600	15,600	7,800	46,800
1600	Travel on Official Business					
1601	Staff Travel	3,000	6,000	6,000	3000	18,000
1699	Sub Total	3,000	6,000	6,000	3,000	18,000
1999	Component total	813,700	1,541,750	673,400	82,700	3,111,550
20	SUB-CONTRACT COMPONENT					
2300	Sub-Contracts (Commercial Purpose)					
2301	Preparation of public awareness materials, pamphlets, flyers, etc.	10,000	20,000	50,000	20000	100,000
2302	Preparation of land cover and risk profile maps	25,000	25000	40,000	10000	100,000
2399	Sub Total	35,000	45,000	90,000	30,000	200,000
2999	Component total	35,000	45,000	90,000	30,000	200,000
30	TRAINING COMPONENT					
3200	Training Component - Group training (field trips, workshops, seminars, etc.) on thematic areas of National Communications and Initiation workshop for TNC and BUR1	100,000	120,000	120,000	32000	372,000
3299	Component total	100,000	120,000	120,000	32,000	372,000
3300	Meetings / conferences					
3301	Participation in regional/global meetings (BUR, V&A, Mitigation, modelling, etc.)	4,000	4,000	4,000	0	12,000
3302	Presentation of BUR at COP session	0	6,000	0	0	6,000
3303	Presentation of TNC at COP session	0	0	0	6,000	6,000
3399	Sub Total	4,000	10,000	4,000	6,000	24,000
3999	Component total	104,000	130,000	124,000	38,000	396,000
40	EQUIPMENT AND PREMISES					
4100	Expendable Equipment					

South Africa: Preparation for the Third National Communication and First Biennial Update Report under United Nations Framework Convention on Climate Change						
GFL/5070-pppp-nnnn						
Budget line	Activities	2014 (US\$)	2015 (US\$)	2016 (US\$)	2017 (US\$)	TOTAL (US\$)
4101	Office supplies (paper, ink cartridges, etc.)	1,000	1,500	1,500	1000	5,000
4199	Sub Total	1,000	1,500	1,500	1,000	5,000
4200	Non Expendable Equipment					
4201	Equip the Project Office (including 2 laptops + printer)	6,000	0	0	0	6,000
4299	Sub Total	6,000	0	0	0	6,000
4999	Component total	7,000	1,500	1,500	1,000	11,000
50	MISCELLANEOUS					
5200	Reporting					
5201	Printing of BUR and preparation of e-copies of BUR for circulation to stakeholders	0	50,000	0	0	50,000
5202	Printing of TNC and preparation of e-copies of TNC and NIR for circulation to stakeholders; Printing of translated summaries of NIR and TNC for circulation to stakeholders	0	0	50,000	98,500	148,500
5299	Sub Total	0	50,000	50,000	98,500	198,500
5300	Sundry					
5301	Communication (local and international)	350	700	600	350	2,000
5302	Postage and courier services	450	900	800	450	2,600
5303	Annual audit	1,500	3,000	3,000	1500	9,000
5399	Sub Total	2,300	4,600	4,400	2,300	13,600
5500	Monitoring and Evaluation					
5501	Review BUR and GHG inventory	0	2,000	2,000	0	4,000
5502	Review V&A, Mitigation and other outputs - TNA, RSO, ETPA, etc.	0	4,000	8,000	0	12,000
5503	Monitoring and Evaluation, Mid-term review	0	25,000	35,000	0	60,000
5599	Sub Total	0	31,000	45,000	0	76,000
5999	Component Total	2,300	85,600	99,400	100,800	288,100
99	TOTAL PROJECT COST	962,000	1,803,850	988,300	252,500	4,006,650

ANNEX 1-A: DETAILED CO-FINANCING BUDGET (IN UNEP FORMAT)

Title:	South Africa: Preparation for the Third National Communication and First Biennial Update Report under United Nations Framework Convention on Climate Change					
	GFL- GFL/5070-pppp-nnnn					
UNEP Budget line	Activities	2014 (US\$)	2015 (US\$)	2016 (US\$)	2017 (US\$)	TOTAL (US\$)
10	PROJECT PERSONEL COMPONENT					
1100	Project Personnel					
1200	Consultant					
1300	Administrative Support	42,000	84,000	84,000	42,000	252,000
1600	Travel on Official Business	12,000	24,000	24,000	12,000	72,000
30	TRAINING COMPONENT					
3200	Training Component	41,000	82,000	82,000	41,000	246,000
3300	Meetings / conferences	7,500	15,000	15,000	7,500	45,000
40	EQUIPMENT AND PREMISES					
4200	Non Expendable Equipment	90,000	180,000	180,000	90,000	540,000
50	MISCELLANEOUS					
5200	Reporting					
5300	Sundry	30,000	60,000	60,000	30,000	180,000
5500	Monitoring and Evaluation	2,000	7,000	5,000	2,000	16,000
99	TOTAL PROJECT COST	224,500	452,000	450,000	224,500	1,351,000

ANNEX 2: CASH ADVANCE STATEMENT

(for projects where only the GEF project grant is channelled through UNEP)

Project number: (insert IMIS project number)

Sub-project number: (insert IMIS sub-project number)

Project title: Enabling Activities for the Preparation of {Country}'s Third National Communication under the UN Framework Convention on Climate Change

Project executing agency:

Cash requirements for the period: from (mm.yy) to (mm.yy)

GEF APPROVED BUDGET US\$

For use by project executing agency A

For use by UNEP - budget lines (insert numbers)

Total approved GEF Trust Fund budget 0

STATEMENT OF CASH RECEIPTS AND EXPENDITURES

Cash advances for project received from UNEP to date

Advance number	Date received (dd.mm.yy)	US\$
1	_____)	
2	_____	
3	_____	
4	_____	
5	_____	
6	_____	
Total cash advances received to date		B <u>0</u>
Cumulative expenditures reported to date		C _____
Cash balance held by executing agency		D = B-C <u>0</u>

CASH ADVANCE REQUIREMENT

Estimated disbursements for the next period (as analysed on the attached schedule)	E	<input type="text"/>
New cash advance requested	F = E-D	<input type="text" value="0"/>

BALANCE OF GEF APPROVED BUDGET NOT YET REQUESTED

Total GEF budget approved for executing agency	A	<input type="text"/>
Total cash advances received to date	B	<input type="text"/>
New cash advance requested	F	<input type="text"/>
GEF approved budget not yet requested	H = A-B-F	<input type="text" value="0"/>

Request approved by _____ Date _____
 Duly authorised official of the project executing agency

For UNEP official use only

Name	Signature	Date
------	-----------	------

I confirm that a cash advance of US\$ is appropriate in view of the progress of the project

_____ UNEP project task manager

I certify the figures reported in A, B, C & D and totals shown above are correct are properly recorded in IMIS

_____ UNEP DGEF certifying officer

**Appendix 1 to Annex 2:
EXPLANATIONS ON THE PLANNED USE OF THE REQUESTED FUNDING FOR THE
NEXT REPORTING PERIOD BASED ON WHICH THE CASH ADVANCE STATEMENT OF THIS
REPORT WAS MADE**

Project No. IMIS: GFL-5070-2724-4xxx

PMS: GF/-2010-07-xx Executing Agency: {Insert name of Executing Agency}

Project title: Enabling Activities for the Preparation of South Africa's Third National Communication and First Biennial Update Report under the UN Framework Convention on Climate Change (UNFCCC)

Project commencing: {Insert commencement date}

Project ending: {Insert completion date}

DESCRIPTION FOR THE CODES	EXPENDITURE ESTIMATES	CLARIFICATION/BREAKDOWN
1100 Project personnel		
1200 Consultant		
1300 Project administrative personnel		
1400 Volunteer		
1600 Travel on official business		
2100 Sub-contract (with IAs)		
2200 Sub-contract (with SOs)		
2300 Sub-contract (business entity)		
3100 Fellowship		
3200 Group training		
3300 Meeting/Conference		
4100 Expendable equipment		

4200 Non-expendable equipment		
4300 Premises		
5100 Operation and maintenance		
5200 Reporting		
5300 Sundry		
5400 Hospitality		
5500 Evaluation		
99 TOTAL		

NB: Object of expenditure in the report should be exactly as required, in order to substantiate the "estimated disbursement" reflected in item 6. of the cash advance statement. The above is simply an example with one code in each class. In the actual projects there may be more than one code in a class and some classes may even not be there.

Annex 3: FORMAT OF QUARTERLY PROJECT EXPENDITURE ACCOUNTS FOR SUPPORTING ORGANIZATIONS

Quarterly project statement of allocation (budget), expenditure and balance (Expressed in US\$) covering the period							
from.....to.....							
Project No.:.....				Supporting organization.....			
Project title:.....							
Project commencing:.....				Project ending:.....			
Object of expenditure in accordance with		Project budget		Expenditure Incurred			Unspent balance of budget allocation
UNEP budget codes		Allocation for Year		For the quarter		Cumulative expenditures this Year	for year.....
		m/m	Amount	m/m	Amount	m/m	Amount
		(1)	(2)	(3)	(4)	(5)	(6)
		(7)					
1101 National Coordinator							
1201 National Circumstances							
1202 National GHG Inventories							
1203 Programmes containing measures to facilitate adequate adaptation							
1204 Programmes containing measures to mitigate Climate Change							
1205 Other Relevant Information (I. Integrating climate change considerations)							
1205 Other Relevant Information (II. Development and Transfer of technologies)							
1205 Other Relevant Information (III. Research and systematic observation)							
1205 Other Relevant Information (IV. Education Training and Public Awareness)							
1205 Other Relevant Information (V. Capacity Building)							
1205Other Relevant Information							

(VI. Information sharing and networking)							
1205 VIII. Constraints and gaps, related financial, technical and capacity needs							
1206 I. Information on the level of support received							
1206 II. Domestic measurement, reporting and verification							
1301 Project Administrative Assistant							
1302 Part-time accountant							
1601 Staff Travel							
2301 Preparation of public awareness material							
2302 Preparation of land cover and risk profile maps							
3200 Training (Field trips, workshops, etc., and inception workshop)							
3301 Participation in regional meetings							
3302 Presentation of BUR at COP							
3303 Presentation of TNC at COP							
4101 Office supplies including consumables and logistical expenses for 4 years							
4201 Equipment including 2 laptops, 1 printer							
5201 Printing of BUR and preparation of e-copies							
5202 Printing of TNC and preparation of e-copies of TNC and NIR							
5203 Publication of the final version of the SNC in Portuguese							
5301 Communication Cost (internet, telephone, fax and courier service)							
5302 Postage and courier services							
5303 Annual audit							
5501 Review BUR and TNC inventory							
5502 Review V & A, Mitigation and other outputs							
5503 Monitoring and Evaluation- Mid-term review							
99 GRAND TOTAL							

Signed: _____

Duly authorized official of supporting organization

NB: The expenditures should be reported in line with the specific object of expenditure as per project budget.

Annex 4: FORMAT FOR QUARTERLY PROGRESS REPORT

(Please attach a current inventory of outputs/Services when submitting this report)

1. Background Information

1.1 Project Number: IMIS: GFL-2328-2724-4xxx:
PMS: GF/-2010-07-xx

1.2 Project Title: Enabling Activities for the Preparation of South Africa's Third National Communication and Initial Biennial Update Report under the UN Framework Convention on Climate Change (UNFCCC)

1.3 Supporting Organization (if relevant):

1.4 Reporting Period (the three months covered by this report):

1.5 Staffing Details of Supporting Organization (Applies to personnel / experts/ consultants paid by the project budget):

Functional Title	Nationality	Object of Expenditure (1101, 1102, 1201, 1301 etc.)

1.6 Sub-Contracts (if relevant):

Name and Address of the Sub-Contractor	Object of Expenditure (2101, 2201, 2301 etc.)

2. Project Status

2.1 Information on the delivery of outputs/services

	Output/Service (as listed in the approved project document)	Status (Complete/ On-going)	Description of work undertaken during the reporting period	Description of problems encountered; Issues that need to be addressed; Decisions/Actions to be taken
1.				
2.				

2.2 If the project is not on track, provide reasons and details of remedial action to be taken:

3. Discussion acknowledgment (To be completed by UNEP)

Project Coordinator's General Comments/Observations	UNEP Task Manager (or its Equivalent) Approval
NAME: _____ DATE: _____	NAME: _____ DATE: _____
SIGNATURE: _____	SIGNATURE: _____

Appendix 1 to Annex 4: Format for Inventory of Outputs/Services
(Attachment to Quarterly Progress Report)

Meetings (UNEP-convened meetings only)

No	Meeting Type (note 4)	Title	Venue	Dates	Convened by	Organized by	# Participants	List attached Yes/No	Report issued as doc no	Language	Dated
1.											
2.											
3.											

List of Meeting Participants

No.	Name of the Participant	Nationality

Printed Material

No	Type (note 5)	Title	Author(s)/Editor(s)	Publisher	Symbol	Publication Date	Distribution List Attached Yes/No
1.							
2.							
3.							

Technical Information / Public Information

No	Description	Date
1.		
2.		
3.		

Technical Cooperation

No	Type (note 6)	Purpose	Venue	Duration	For Grants and Fellowships		
					Beneficiaries	Countries/Nationalities	Cost (in US\$)
1.							

2.							
3.							

Other Outputs/Services (e.g. Networking, Query-response, Participation in meetings etc.)

No	Description	Date
1.		
2.		
3.		

10. NOTE 4 : Meeting types (Inter-governmental Meeting, Expert Group Meeting, Training Workshop/Seminar, Other)

14. NOTE 5 Material types (Report to Inter-governmental Meeting, Technical Publication, Technical Report, Other)

15. NOTE 6 Technical Cooperation Type (Grants and Fellowships, Advisory Services, Staff Mission, Others)

Annex 5: FORMAT FOR INVENTORY OF NON-EXPENDABLE EQUIPMENT

PURCHASED AGAINST UNEP PROJECTS UNIT VALUE US\$1,500 AND ABOVE AND ITEMS OF ATTRACTION

As at _____

Project No. __ IMIS: GFL-5070-2724-4xxx
PMS: GF/-2010-07-xx

Project Title: Enabling Activities for the Preparation of South Africa's Third National Communication and Initial Biennial Update Report under the UN Framework Convention on Climate Change (UNFCCC)

Executing Agency: _____

Internal/SO/CA (UNEP use only) _____

FPMO (UNEP) use only) _____

Description	Serial No.	Date of Purchase	Original Price (US\$)	Purchased / Imported from (Name of Country)	Present Condition	Location	Remarks/recommendation for disposal

The physical verification of the items was done by:

Name: _____

Signature: _____

Title: _____

Date: _____

Annex 6 – FORMAT FOR TERMINAL REPORT

1. Background Information

1.1 Project Number

1.2 Project Title

1.3 Implementing Organization

2. Project Implementation Details

2.1. Project Activities (*Describe the activities actually undertaken under the project, giving reasons why some activities were not undertaken, if any*)

2.2. Project Outputs (*Compare the outputs generated with the ones listed in the project document*)

2.3. Use of Outputs (*State the use made of the outputs*)

2.4. Degree of achievement of the objectives/results (*On the basis of facts obtained during the follow-up phase, describe how the project document outputs and their use were or were not instrumental in realizing the objectives / results of the project*)

2.5. Determine the degree to which project contributes to the advancement of women in Environmental Management and describe gender sensitive activities carried out by the project.

2.6. Describe how the project has assisted the partner in sustained activities after project completion.

3.1 Conclusions

3.1 Lessons Learned (*Enumerate the lessons learned during the project's execution. Concentrate on the management of the project, including the principal factors which determined success or failure in meeting the objectives set down in the project document*)

3.2 Recommendations (*Make recommendations to (a) Improve the effect and impact of similar projects in the future and (b) Indicate what further action might be needed to meet the project objectives / results*)

4. Attachments

4.1 Attach an inventory of all non-expendable equipment (value over US\$ 1,500) purchased under this project indicating Date of Purchase, Description, Serial Number, Quantity, Cost, Location and Present Condition, together with your proposal for the disposal of the said equipment

4.2 Attach a final Inventory of all Outputs/Services produced through this project

APPENDIX 1 OF ANNEX 6
ATTACHMENT TO TERMINAL REPORT: FORMAT FOR INVENTORY OF
OUTPUTS/SERVICES

Meetings (UNEP-convened meetings only)

No	Meeting Type (note 4)	Title	Venue	Dates	Convened by	Organized by	# of Participants	List attached Yes/No	Report issued as doc no	Language	Dated
1.											
2.											
3.											

List of Meeting Participants

No.	Name of the Participant	Nationality

Printed Materials

No	Type (note 5)	Title	Author(s)/Editor(s))	Publisher	Symbol	Publication Date	Distribution List Attached Yes/No
1.							
2.							
3.							

Technical Information / Public Information

No	Description	Date
1.		
2.		
3.		

Technical Cooperation

No	Type (note 6)	Purpose	Venue	Duration	For Grants and Fellowships		
					Beneficiaries	Countries/Nationalities	Cost (US\$)
1.							
2.							
3.							

Other Outputs/Services (e.g. Networking, Query-response, Participation in meetings etc.)

No	Description	Date
1.		
2.		
3.		

13. NOTE 4 - Meeting types (Inter-governmental Meeting, Expert Group Meeting, Training Workshop/Seminar, Other)

14. NOTE 5 - Material types (Report to Inter-governmental Meeting, Technical Publication, Technical Report, Other)

15. NOTE 6

ANNEX 7: TERMS OF REFERENCES

(1) TERMS OF REFERENCE FOR THE PROJECT COORDINATOR (PC)

The Project Coordinator (PC) will work under the guidance of the Project Steering Committee (PSC) and will report directly to the Executing Agency (EA). He/She will be responsible for ensuring that the project is implemented according to the agreed work-plans, timeframes, and budget to achieve the objectives outlined in the project document.

(2) SPECIFIC DUTIES

- Coordinate, manage and monitor the implementation of the project;
- Prepare detailed work-schedules and budgets, in consultation with the PSC, to ensure outputs meet the objectives of the project;
- Prepare Terms of Reference for technical services, consultants, and experts, and specifications of materials as required by the project, in consultation with the PSC and UNEP;
- Compile the scope and content of the overall TNC report and relevant sections in consultation with Team Leaders;
- Manage all activities of the project, within the agreed budget, to achieve the expected outputs of the project in consultation with the PSC;
- Identify and hire/subcontract the national experts and institutions (in consultation with the EA/PSC and UNEP);
- Manage consultants and their performance in consultation with the EA/PSC, and supervise project administrative staff;
- Organizes and supervises the workshops and training needed during the project execution;
- Be responsible for the timely and accurate submission of all project financial and operational reports to UNEP;
- Coordinate consultations with stakeholders under the guidance of the EA/PSC;
- Submit quarterly progress and financial reports, terminal reports and briefing reports as needed and as specified in the contractual arrangements to the Project Steering Committee and the Intergovernmental Committee on Climate Change (IGCCC).
- Coordinate and oversee the preparation of the outputs of the project;
- Organize meetings of the PSC, and serve as Moderator of the PSC.
- Finalize the Third National Communication of South Africa along with Government personnel and national experts

(3) QUALIFICATIONS AND EXPERIENCE

- Preferably a Master's Degree in environment-related studies and other related disciplines;
- Knowledge and understanding of the relevant UN Conventions, environment/development issues in The Republic of South Africa as well as the three main thematic areas under investigations;

- At least six to eight years' experience relevant to the project;
- Excellent communication (Written and Oral) Skills;
- Demonstrated experience in project management;
- Familiarity with international negotiations and processes under the UNFCCC preferred.

(4) TERMS OF REFERENCE FOR ADMINISTRATIVE ASSISTANT

The Administrative Assistant (AA) will be supervised by the PC and will assist the PC and EA with project administration, logistics, and office management and ensure good linkages, coherence, communication and organization between all parties.

(5) SPECIFIC DUTIES (AA)

- Support the PC in implementing project activities efficiently and effectively;
- Assist the PC with the timely preparation of progress and financial reports;
- Provide support to the PC and other project personnel in preparing meetings, workshops, visits, travel of project personnel and steering committee members;
- Assist the PC to ensure timely communication and liaison between the project and project stakeholders;
- Maintain personnel, financial, and other files related to the project;
- Maintain an inventory of all project assets;
- Type reports, draft correspondence, contracts, notes, and file appropriately;
- Perform other duties as required

(6) QUALIFICATION AND EXPERIENCE (AA)

- Proven skills in participatory development training, workshops and facilitation skills;
- Effective communication skills (written and oral);
- A Social Science Degree with a minimum of 3 years relevant work experience